August, 1955

The American School Board Journal

A PERIODICAL OF SCHOOL ADMINISTRATION

In This Issue:

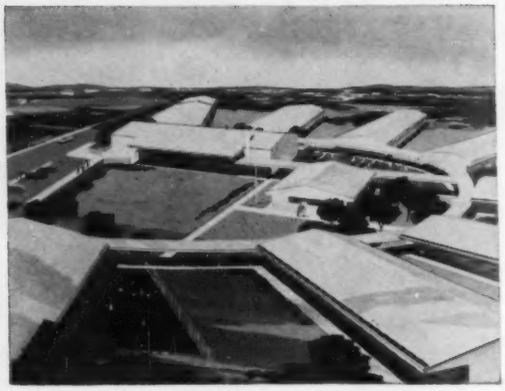
★ **The Place of Phonics in Reading** — *Anderson*

★ **Public Education at State Level** — *Exton*

★ **School Board as Educational Leader** — *Lobdell*

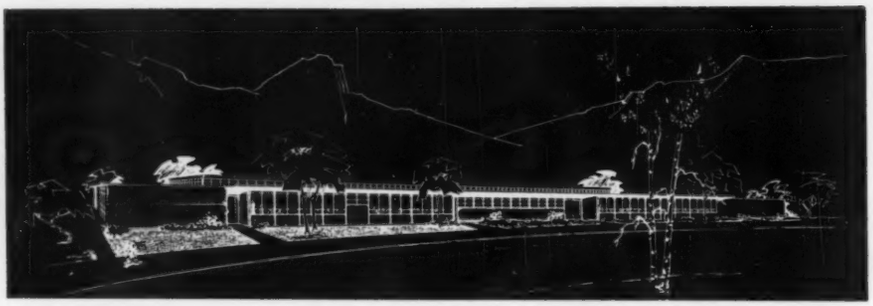
★ **Orienting for the New School** — *Mosher*

for Forward Thinking Communities



Chapman Elementary School
Garden Grove, Calif.

Architects: Daniel, Mann, Johnson & Mendenhall



Orem Elementary School
Orem, Utah

Architect: William Rowe Smith

Climate, architectural surroundings, budget, etc., will determine the design of your new schools but for certain, they will include facilities and features that represent the latest thinking in school design to keep them modern and efficient for years to come.

Schieber multipurpose room equipment was specified in these schools – is in use in thousands like them in all parts of the country. Leading school architects recommend Schieber for its recognized quality construction and outstanding 24 year performance record.

Madison Elementary School
Madison, Conn.
Architects: Westcott & Mapes, Inc.

NOTE THESE QUALITY SCHIEBER FEATURES

1. Mark-proof, silent, oilless bearing casters.
2. Counterbalanced for easy operation.
3. Optional permanent sanitary tops.
4. Strong, all-steel, welded, fire-proof construction.
5. Safety locking devices to prevent accidents.
6. Forged steel, brackets and hinges. No castings.
7. Tight fitting, bright stainless steel edges.
8. Tables and benches may be used separately. No connecting bars or obstructions.

Write for Catalog

ORIGINATORS OF MULTI-PURPOSE LUNCHROOM EQUIPMENT

Schieber
SALES COMPANY
Detroit 39, Michigan

REPRESENTATIVES IN ALL AREAS

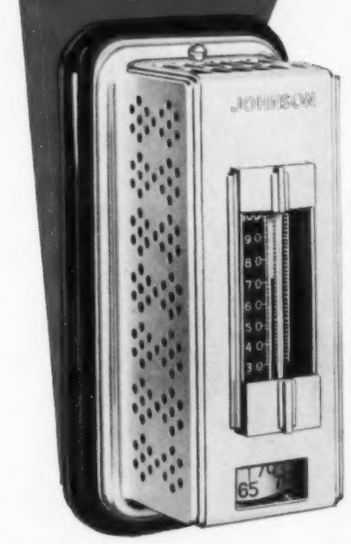
In Canada

Vancouver: LaSalle Recreation, Ltd.

Montreal: Madden – Cummins, Ltd.
Raymond Hardware, Ltd.

Here's how to insure

EFFICIENT, ECONOMICAL HEATING NEXT WINTER



Here's a suggestion that could easily save you hundreds of dollars —or even more—on next winter's heating bills:

This month, *now,* while your school's heating plant is "on vacation", have one of our factory-trained maintenance experts ready your Johnson Automatic Temperature Control System for the coming heating season.

All you have to do is call or write your nearest Johnson branch office.

A thorough inspection and adjustment of every thermostat, valve, damper and other vital part of your Johnson Control System is included in this check-up. You'll discover, as have tens of thousands of schools everywhere, that the minor adjustments included in this annual "tune up"' pay big dividends in *extra* comfort and fuel economy.

The cost of an inspection is nominal, and no repairs or replacements will be made without your prior authorization.

As a bonus benefit, our servicemen will cooperate with your own maintenance men by answering questions and giving advice that will further insure utmost operating efficiency of your heating equipment.

In order to provide this helpful service to each of the more than 50,000 schools with Johnson Control, Johnson maintains full-time service mechanics in some 200 cities. Call or write today to be sure your school is put on the service schedule. Work can be done anytime to suit your convenience. Johnson Service Company, Milwaukee 2, Wisconsin. Direct Branch Offices in Principal Cities.

If your school does not already enjoy the superior comfort and fuel saving benefits of Johnson Automatic Temperature Control—and the "plus service" available to every installation—write or phone any Johnson branch office and find out how easily Johnson Control can be installed in your building. There is no obligation.

JOHNSON CONTROL

TEMPERATURE AIR CONDITIONING

PLANNING • MANUFACTURING • INSTALLING • SINCE 1885

No. 60 Deep Spring chairs in Encinal High School, Alameda, California

American Seating Folding Chairs

first choice in schools everywhere, now offer arm-rests and tablet-arms

FOUR POPULAR SEAT STYLES

No. 53
has shaped steel seat.

No. 54
has formed birch seat.

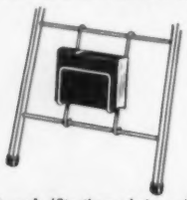
No. 56
is upholstered in high-quality vinyl-plastic material of unusual beauty and ruggedness, choice of 5 colors.

No. 60
has wide, deep spring seat, upholstered in a large selection of materials, including Dupont Fabrilite in 7 colors.

No. 53 with arm-rests

CAN BE GROUPED EASILY

Clamps lock American Seating Folding Chairs in groups of 2, 3, or 4 chairs, 1" apart, for quick alignment in large installations. **Steel threshold:** locks ends of rows, separating rows 30" back to back. Available in sections to accommodate 3 or more rows. **Handy storage trucks** are available in four styles.



Book rack (*fits these chairs only*)—Snaps over rear cross braces; sturdily built; holds books up to 1⅜" thick.

Plywood tablet-arm, on No. 53 only, 12¾" by 21⅛", folded manually when chair is folded for storage.

AMERICAN SEATING Folding Chairs outnumber all others in school use. Against vigorous competition, they are repeatedly first choice for comfort, safety, durability, and convenience—and, of course, for VALUE.

Now these favorite chairs gain even more comfort and convenience, with the addition of arm-rests which fold automatically with the chair—or a tablet-arm which is folded manually, for added convenience in taking notes.

American Seating Folding Chairs are unconditionally guaranteed in normal use, by the World's Leader in Public Seating. Mail the coupon now!

OVER 11 MILLION NOW IN SERVICE!

MAIL THIS COUPON TODAY

American Seating Company

Dept. 4-F, Grand Rapids 2, Michigan • World's Leader in Public Seating

☐ Please send your latest catalog on AMERICAN SEATING FOLDING CHAIRS

☐ I am interested in_____(quantity) ☐ No. 53 Steel seat ☐ No. 54 Birch seat

☐ No. 56 Imitation-leather upholstered seat ☐ No. 60 Deep Spring upholstered seat

Name of school or church_____

Street_____

City and Zone_____ State_____

Individual and title_____

modern

THE AMERICAN
School Board Journal
A Periodical of School Administration

August 1955

VOL. 131 NO. 2

CONTENTS

The Place of Phonics in the Reading Program ..... Paul S. Anderson 15
Bellflower Challenges the Gifted ..... W. Norman Wampler 18
A Dual Mark for Reporting Pupil Subject Accomplishment ..... Kenneth A. McDonell 19
A Multi-Million Dollar School Building Program ... John F. Delaney 21
Public Education at the State Level ..... Elaine Exton 22
The School Board as Educational Leader ..... Lawrence O. Lobdell 25
Space Allocation in Washington High Schools, III .. Ernest Hayes, Ed.D. 27
Orienting for the New School ..... Howard H. Mosher 29
Curriculum Reports to the Board ..... Theo J. Norby and Albert Grant 32
Personnel Practices Helpful in Attracting and Retaining Good Teachers ..... Clyde L. Ogden, Ed.D. 33
How a Citizens Committee Served the Schools ..... R. S. Morgan 34
Only One of Its Kind ..... Carleton M. Saunders 35
Willard Elementary School 39
Forest Grove Union High School 42
N.S.B.A. Executive Committee Meets at U. S. Office of Education ..... Edward M. Tuttle 46

EDITORIALS:

Schools and Federal Reorganization 45
A Presidential Job 45
Refuse Pay 45

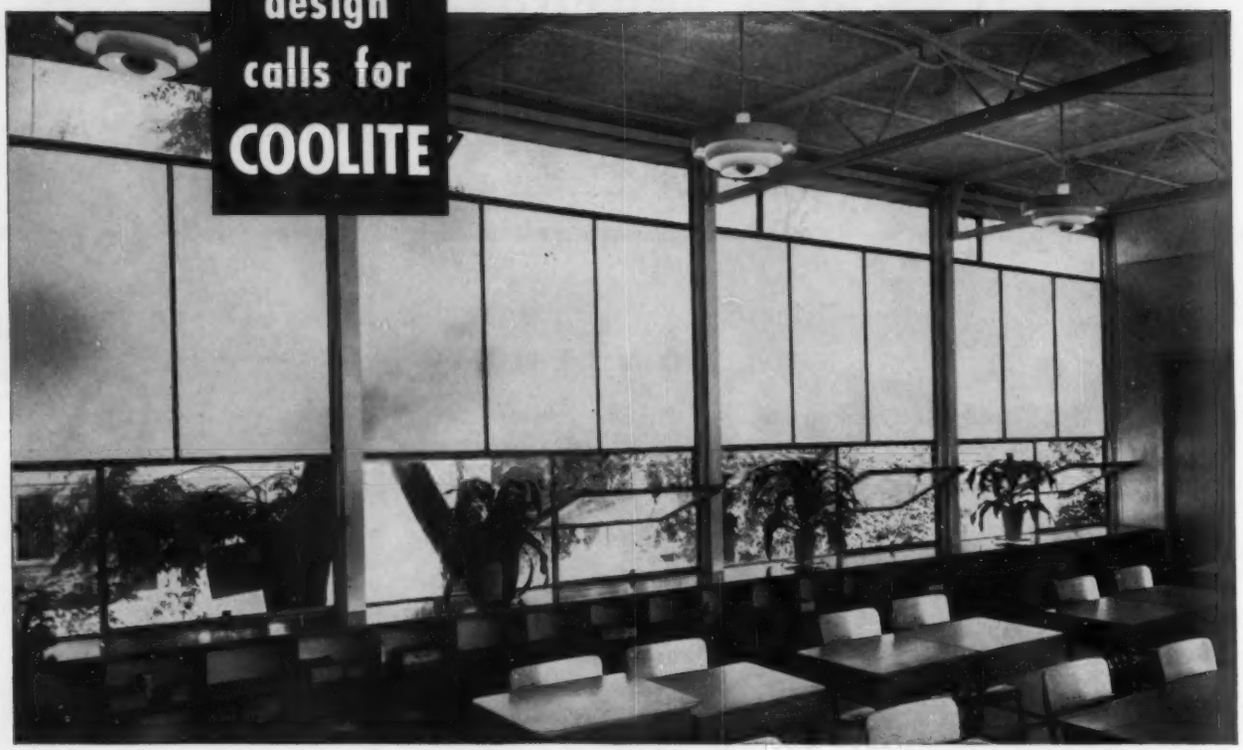
DEPARTMENTS:

School Administration in Action 5
School Finance and Taxation 54
Personal News of Superintendents 60
Personal News of School Boards 60
News of Products for the Schools 62

Published on the 25th of the month preceding the date of issue by **THE BRUCE PUBLISHING COMPANY**, 400 North Broadway, Milwaukee 1, Wisconsin • **CENTRAL OFFICE:** 20 North Wacker Drive, Chicago 6, Illinois • **EASTERN OFFICE:** 225 Broadway, New York 7, New York.

Copyright, 1955, by the Bruce Publishing Company. — All rights reserved. Title registered as Trade Mark in the United States Patent Office. Entered as Second-Class Mail Matter, March 17, 1891, at the Post Office at Milwaukee, Wisconsin, under the Act of March 3, 1879. • SUBSCRIPTIONS. — In the United States, Possessions, and Canada, $3.50 a year, payable in advance. Two-year subscriptions will be accepted at $5.50; three-year subscriptions, at $7.50. In all foreign countries, $4.00. Single copies, 50 cents. • DISCONTINUANCE. — Notice of discontinuance of subscription must reach the Publication Office in Milwaukee, at least fifteen days before date of expiration. • CHANGE OF ADDRESS. — When you have a change of address kindly report it to us at once. Send us your old as well as your new address and be sure the Postmaster is notified. New Postal Regulations restrict service on magazines to be forwarded to you to two issues only. • EDITORIAL MATERIAL. — Manuscripts and photographs bearing on school administration, superintendence, school architecture, and related topics are solicited and will be paid for upon publication. Contributions should be mailed to Milwaukee direct, and should be accompanied by stamps for return, if unavailable. Open letters to the editor must in all cases contain the name and address of the writer, not necessarily for publication, but as evidence of good faith. • The contents of this issue are listed in the "Education Index."

modern design calls for COOLITE



New Thomy Lafon Elementary School, New Orleans, La.; Curtis & Davis, Architects; A & O Builders, General Contractors

Mississippi Heat Absorbing, Glare Reducing Glass Brightens Classrooms Without Excessive Solar Heat or Eye-Fatiguing "Raw" Sunlight

The Thomy Lafon School, New Orleans, La., acknowledged to be an outstanding modern design, makes extensive use of Coolite, Heat Absorbing, Glare Reducing Glass. It's unique qualities fit the aim of the architects and engineers, Curtis & Davis, to obtain "the ultimate in scientific achievement for natural lighting . . . a truly functional architecture adapted to human values and physical needs." For Coolite floods classrooms with softened, glare-free light for easier seeing . . . absorbs up to 50% of the solar heat to help keep interiors comfortable.

Coolite removes the harmful qualities of "raw" sunlight . . . helps students see better, feel better, work better. Coolite permits use of large glass areas without undue heat . . . makes rooms appear larger, friendlier.

Consider Coolite for your classrooms when you build or remodel. Translucent glass by Mississippi for better daylight illumination is available in a wide variety of patterns and surface finishes to fit any daylighting need within any school budget.

Mississippi maintains an experimental school building on factory grounds for the study of daylighting. Take advantage of the company's wide experience. It's technicians are ready to help you with every daylighting problem.

MISSISSIPPI *Glass* COMPANY

88 ANGELICA ST. SAINT LOUIS 7, MO.

NEW YORK • CHICAGO • FULLERTON, CALIF.

Send today for catalog, "Better Daylighting For Schools." Write Dept. 14.

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS

School ADMINISTRATION in Action

POLICIES FOR MANAGING PLAYGROUNDS

The Milwaukee Board of School Directors conducts an extensive program of play and recreation for children and adults. An important aspect of the activities is outdoor play and sports conducted in neighborhood playgrounds and playfields. The recreation areas are owned in part by the city of Milwaukee and are paid for by the Common Council; in part they are school playgrounds adjoining the school buildings. All of the activities are managed by the school department and the staff consists of teachers and trained playground directors.

The recreation areas are of three types:

1. *Tot Lots:* Small play areas for small children, usually a part of an existing playground, playfield, or park. The supervision of these children is the responsibility of parents.
2. *Neighborhood Playgrounds:* These are usually areas of three to five acres, providing a minimum of 100 square feet of play space per child. They are usually adjoining an elementary school or are part of a playfield or a public park. The influence ranges from one-quarter to one-half mile radius.
3. *Playfields:* These are usually 10 to 20 acres in size and provide ball fields, tennis courts, and equipment and facilities for other major athletic contests. Their range of influence is one-half to one mile radius and often includes a neighborhood playground.

Location of Neighborhood Playgrounds

It is the policy of the school authorities to locate playgrounds adjoining elementary schools or neighborhood parks. Rarely is a playground segregated from a school or park. Neighborhood playgrounds whenever possible extend to the street or alley lines and do not abut private property.

Financing and Purchasing

The purchase and improvement of new neighborhood playgrounds and playfields is made by the City Council on the basis of the School Directors' recommendations and within the limits of the most recent Ten-Year Playgrounds Sites Survey and Program. The Board of School Directors under the present policy must be consulted and purchases must come within the latest Five-Year School Building and Future Sites Program. As a rule, purchases are made before any private or public buildings are erected on a site or other real estate development is started.

Construction and Reconstruction

The construction of buildings on neighborhood playgrounds used for public recreation as distinguished from areas used only for school play purposes is under the control of the municipal Commissioner of Public Works. The school authorities are responsible only for the surfacing and development of areas adjacent to new school buildings so far as these are to be used for recess activities and outdoor physical education. The city authorities provide funds for neighborhood playground and playfield reconstruction and the work is done by municipal authorities in cooperation and with the approval of the Board of School Directors. All changes in the layout and use of areas are made by mutual agreement.

The actual operation and supervision of playgrounds is under the direction of the department of Municipal Recreation of the Board of School Directors. The maintenance includes resurfacing of grounds, replacement of lighting, equipment, minor changes in dimensions or grades, minor remodeling, and general repairs. The Board of School Directors provides funds for these maintenance purposes.

Development of Sites

New school sites purchased by the school authorities include as a policy areas for school and neighborhood playgrounds. In the development of these sites the Common Council co-operates through the payment of the development costs. Plans for such development of playgrounds are submitted by the school authorities to the Common Council. Partially completed playgrounds are managed by the Board of School Directors which holds the responsibility for operation and maintenance prior to completion of an entire project.

The entire program of play, including leadership and supervision, the days and hours of operation, and the use of all facilities on all play areas is determined by the Board of School Directors. When an area is abandoned the property reverts to the agency which made the original purchase.

Blackboard Jungle
— Los Angeles Times

SCHOOL BUILDING COSTS IN BALTIMORE

Fire-resistive elementary school buildings, erected in Region 2 of the United States in 1953 and 1954 have been found by the U. S. Office of Education to cost $18.79 per square foot. As compared to this, the large elementary schools erected recently in Baltimore, Md., averaged $16.79 per square foot, or 10.65 per cent less than the average in the northeastern United States.

Junior high school costs in the same area were shown to be $17.58 per square foot, as against Baltimore's $15.58, or 12.5 per cent less. The senior high schools and technical high schools built so far have cost Baltimore $17.26 per square foot, as compared with $20.85 in the northeastern states, or 17 per cent less.

In another study on the per cubic foot basis, an average of $1.10 per cubic foot was established for the same type of fire-resistive structure of approximately 24 classrooms, auditorium, gymnasium, and cafeteria. In Baltimore, the average on this basis is .99½ cents per cubic foot, or 9.5 per cent less than the average for those buildings.

The achievement of such low comparative costs in Baltimore has resulted from the work of the young engineers in the Division of School Facilities who maintain constant care and vigilance as they work with the architects, with the view of effecting all possible economies and utilizing new materials and methods of construction which speed the project to completion and result in a minimum expenditure.

SELLING THE BUDGET

Parents of all children enrolled in the Harrison, N. Y., schools are kept informed on the finances of the school district. Annually in April, when the school budget is in process of completion, every family receives a booklet explaining the budget, and making clear the need for changes in the annual outlays.

The 20-page booklet outlining the 1955–56 budget fully justifies all cost aspects on the basis of the educational services to be rendered. It contains (1) a letter from the President analyzing the increase in the budget, (2) the qualifications of voters in elections, (3) comparative budgets and expenditures for the school years 1953–54 and 1954–55, together with the budget for 1955–56 and explanations, (4) the school tax rates and assessed valuations in comparable districts for 1954–55, (5) two pages of facts about the school system under the heading "Do You Know That?" (6) an explanation of the present status of building needs of the district and the employment of an educational building consultant, (7) a chart showing how the school tax dollar is being spent, and (8) suitable educational quotations.

Supt. Louis M. Klein reports that the distribution of 1500 copies of the booklet has enabled the school board to reach practically every affected taxpayer and school patron. In previous years only about one hundred persons who attended the annual school meeting were reached.

BOND PROPOSAL APPROVED

The board of education of Tucson, Ariz., recently approved recommendations by the citizens' advisory committee calling for an 8 million dollar bond issue. Voters of school

(Concluded on page 8)

Do your schools have money

WASTED FUEL DOLLARS SAVED BY HERMAN NELSON DRAFT|STOP SYSTEM GIVE YOU CLASSROOM COMFORT "FOR FREE".

IF you're depending on open windows for classroom cooling and ventilation, you do *have money to burn!* It's the fuel dollars spent for unneeded heat—heat that is literally "tossed out the window" in an effort to bring classroom temperatures down to comfort level.

Herman Nelson DRAFT|STOP lets you keep both windows and heating costs down through balanced two-way temperature control. It heats only when heat is needed. When your "free heat" sources—sun, lights and students—take over, this system assumes the function of cooling, introducing outdoor air in sufficient quantities to maintain classroom temperature at comfort level. And, to make this fuel saving complete, the Herman Nelson method of draft elimination functions without using costly heat.

Comfort and cash savings—let Herman Nelson prove how easy it is to have both. For complete information, see our catalog in Sweet's Architectural File, or write Herman Nelson Unit Ventilator Products, American Air Filter Co., Inc., Louisville 8, Ky.

NEW YORK. With today's critical classroom shortage, this room represents a perfect example of low cost modernization. Even with windows closed and curtains drawn, a Herman Nelson DRAFT|STOP Unit Ventilator keeps this Audio-Visual demonstration classroom at New York University properly cooled and ventilated. Installation includes new Light|Stop Curtain Accessory (see inset) which prevents curtain from billowing due to discharge air from unit ventilator, thereby eliminating distracting light streaks. Co-chairmen National Committee on Buildings and Equipment, Department of Audio-Visual Instruction of the N.E.A.: Dr. A. J. Foy Cross and Dr. Irene Cypher; Architects: Eggers and Higgins.

DRAFT STOP

Provides

COOLING, HEATING
VENTILATION, ODOR CONTROL
DRAFT ELIMINATION

All at minimum cost

herman nelson

UNIT VENTILATOR PRODUCTS

AMERICAN AIR FILTER COMPANY, INC.

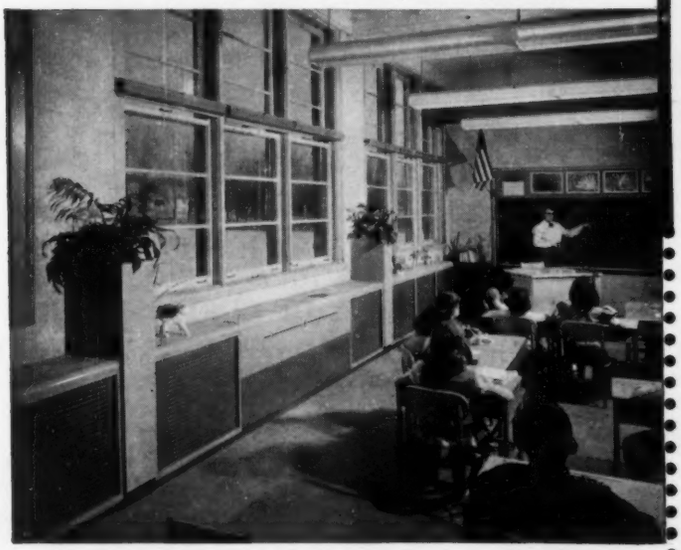
SYSTEM OF
CLASSROOM COOLING, HEATING AND VENTILATING

 ... pleted the required 30 credits to entitle them ... boys and girls on register in grades three

to burn?

SOUTH DAKOTA. Large glass areas help insure bright, cheerful classrooms—but cooling, heating and ventilating functions at Lincoln Grade School, Yankton, S. D., are assigned to dependable, efficient Herman Nelson DRAFTSTOP Unit Ventilators. Superintendent of Schools: L. H. Baumann; Architects: Hugill, Blatherwick & Fritzel; Engineers: G. M. Orr Engineering Co.; Mechanical Contractor: Freeman Corporation.

ILLINOIS. Helps them to concentrate in comfort. No chilling drafts — no interruptions from opening and closing windows. Herman Nelson Unit Ventilators meet classroom cooling, heating and ventilating requirements every season of the year at Solomon School, Chicago, Ill. Superintendent of Schools: Benjamin Willis; Architect: John C. Christensen; Engineer: Joseph T. Fatz, Sr.; Mechanical Contractor: Dearborn Plumbing & Heating Service, Inc.



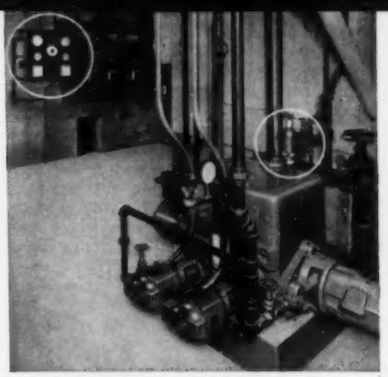
OTHER

AAF

herman nelson SCHOOL PRODUCTS

TUNES IN WITH THE WEATHER!

Illinois Selectotherm — an automatically controlled high vacuum steam heating system which through single dial control, balances heat supply against heat loss in many school spaces. Ask for Bulletin 540.



SHORT CUT TO BIG SAVINGS!

Herman Nelson renewable AMER-glas filter combines the best features of a permanent filter with the time and money-saving advantages of a replaceable filter. Just four easy steps and the classroom filter is restored to its original efficiency.

1. Remove the aluminum filter frame from the unit ventilator and dispose of soiled media.

2. Pull out desired length of clean AMER-glas media from self-dispensing carton and cut with scissors.

3. Insert the clean filter media in the frame and lower hinged top into position.

4. Replace the filter frame in the unit ventilator. It's ready to go!

AMERICAN AIR FILTER CO., INC.

Dept. AJ-8

Louisville 8, Kentucky

I would appreciate receiving literature describing the following products—

- ☐ Classroom Unit Ventilators
- ☐ **illinois** Selectotherm
- ☐ Renewable **AMER-*glas*** filters
- ☐ Dust Control for Woodworking Shops

Name_____

Address_____

City_____ State_____

SCHOOL ADMINISTRATION IN ACTION

(Concluded from page 5)

district No. 1 will shortly be asked to approve a bond issue to provide funds for new construction needs during the next three-year period. The bonds, to be of the 20-year type, will be sold only as needed.

DEARBORN PROMOTIONS

Annual promotions in the Dearborn, Mich., schools have been approved by a committee of 23 teachers, principals, and parents, in a report presented recently to the board of education. If the plan is adopted, it will affect only children entering kindergarten beginning in February, 1955. Children already in school will continue on the present semiannual plan. The changeover will take 13 years to complete.

Advantages claimed for the plan are that it eliminates midyear entrances, reduces retardation, aids pupil growth, increases scope of high school programs, is economically efficient, and simplifies classroom organization.

WORKING COMMITTEES

Several members of the school instructional staff in Jefferson County, Colo., have been working on special committees during the school year 1954–55. Civil defense, a safety program, and a new instructional curriculum were some of the projects carried out. A summer school for students and a camping education program are planned for the summer. A student exchange program will become effective for the first time in September. Graduation requirements for high school students received much attention during that period. It has been decided that all students graduating from high school must have completed the required 20 credits to entitle them to a diploma.

NEW HIGH SCHOOL CURRICULUM

The board of education of Pittsburgh, Pa., has taken steps to carry out the recommendations of its committee on reorganization of the senior high school curriculum. The committee has submitted five recommendations calling for (1) the establishment of four separate curriculums, to be designated academic, business, general, and vocational; (2) a revision of the high school diploma in conformity with the approved curriculums; (3) the setting up of 34 credits as requirements for graduation, and the stipulation that students be permitted to complete a four-year program in less than four years or to broaden electives to 40 credits; (4) a strengthening of the requirements for graduation to include a restriction on elective subjects, a lengthening of the class periods in physics and chemistry, and the establishment of classes in advanced mathematics, science, and English; (5) the establishment of a certification of completion, rather than a diploma for mentally retarded pupils.

RELIGIOUS STUDY AT RECORD HIGH

The number of New York City children attending released-time religious instruction classes reached a record high of 121,488 in 1955, according to the Rev. Walter M. Howlett, executive secretary of the Greater New York Co-ordinating Committee on Released Time. The total for this year exceeds last year by 2204, and the previous high of 1948, by 1889.

The 121,488 pupils who participated in the program represent 28 per cent of the 434,640 boys and girls on register in grades three through eight. The largest number, 40,351, were in Brooklyn Borough.

SCHOOL GROWTH HAILED

A 24-page supplement about the outstanding progress of the Barren, Ky., public schools was included in the April 11 edition of the daily *Glasgow Times and Evening Journal*. It reported on the history of the growth of the schools in recent years, describing school buildings, facets of the school program, and members of the school staff. Credit for leadership in this progress is given to county superintendent Mitchell Davis and the board of education under H. H. Barlow.

BETTER NEWS COVERAGE

To insure better news coverage, students in the Union Free High School District, Burlington, Wis., visit each teacher weekly to record any items of interest on a prepared blank. The filled-in blanks are available to the local news reporter who can contact the teacher for details and write his story if he wishes.

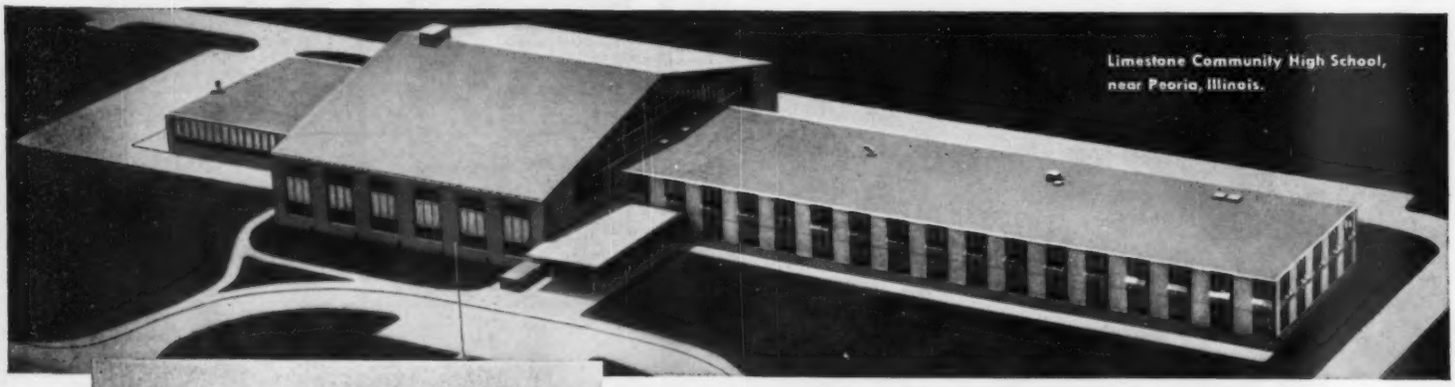
1956 AASA YEARBOOK

The 1956 AASA yearbook will consider the important topic of school board and superintendent relationships. Real-life cases of misunderstanding between the two groups will be utilized by the yearbook to show the way to better relationships.

"DRIVE-IN" SCHOOL VOTE

In an effort to promote interest over a recent bond issue vote, the Central School District of Onodaga County, N. Y., converted a bus garage into a "drive-in" voting place. Voters could drive their cars in one end of the garage, vote from their car seat, and drive out the other end. The issue of $230,000 passed with an 87 per cent favorable vote.

SCHOOL ARCHITECTURE and LURIA Steel Buildings



Limestone Community High School, near Peoria, Illinois.

Grade School, Community District Unit 213, Fancy Prairie, Illinois.

ARCHITECTS: HEWITT & BASTIAN PEORIA, ILL.

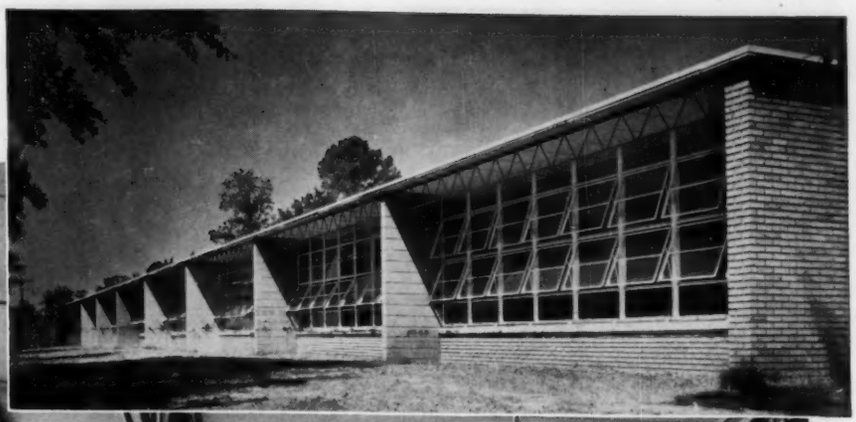
All the INDIVIDUALITY OF CUSTOM-BUILT STRUCTURES *plus* the ADAPTABILITY and ECONOMY of LURIA'S STANDARDIZATION...

More and more, Luria Standardized Steel Frames are employed in successful school architecture. By designing around and inside them, today's architects are achieving handsome, custom-designed structures at less cost... and in less time. For the *complete* Luria story, contact your nearest Luria office for a catalog or personal call.

LURIA ENGINEERING Company 511 FIFTH AVENUE, NEW YORK 17, N. Y.

Plant: BETHLEHEM, PA. • *District Offices:* ATLANTA, PHILADELPHIA, BOSTON, CHICAGO, WASHINGTON, D.C. • Dealers in Principal Cities and Canada

Langley-Bath-Clearwater High School, Bath, S. C. Architects: Lyles, Bissett, Carlisle & Wolff, Columbia, S. C. Contractors: E. M. Spong Construction Co., Columbia, S. C. Windows: Lupton Steel Projected.



Lupton Windows—and Walls—help speed construction

Now there are two ways to speed school building — quickly installed Lupton Metal Windows, as in this new school — and the new Lupton Simplified Curtain-Wall System. Architect designed, prefabricated curtain-wall units are engineered, made *and* installed by Lupton on the building's framework. Now, a single or multi-story building can be enclosed in days, not weeks . . . with decided savings in time and labor. Backed by Lupton skill — gained through fifty years experience in manufacturing metal windows. An illustrated brochure shows and tells the complete story — it's yours for the asking.

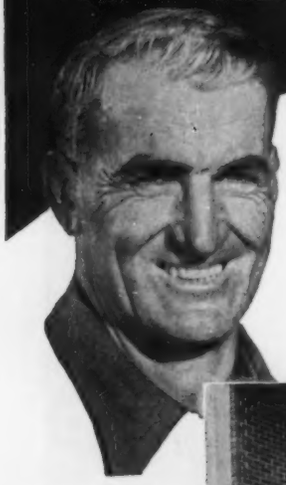
MICHAEL FLYNN MANUFACTURING CO.
Main Office and Plant: 700 E. Godfrey Avenue, Phila. 24, Pa.
New York Office: 51 E. 42nd Street, New York 17, N. Y.
West Coast Office: 672 S. Lafayette Park Place, Los Angeles 57, Calif.
Stockton Office and Warehouse: 1441 Fremont Street, Stockton, Calif.
Sales Offices and Representatives in other principal cities

LUPTON
METAL WINDOWS AND CURTAIN-WALLS

"We saved over 1600 man hours using 'UP-RIGHT' SCAFFOLD-ON-WHEELS"

NEW, FASTER, SAFER WAY TO GET UP IN THE AIR AND ROLL WITH THE JOB.

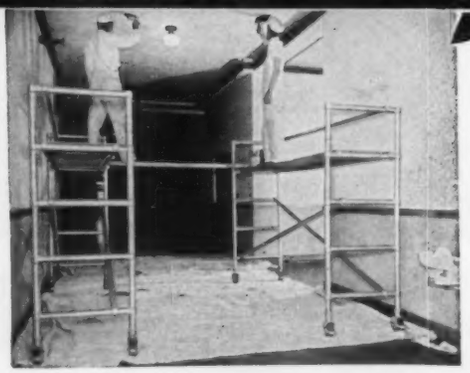
In minutes, a mobile tower of any height desired is erected by setting individual sections one on top of the other. The one-piece folding sections are quickly assembled without tools, wing nuts or bolts.



"Our summer program of overhead building and classroom maintenance that formerly took 13 weeks is now completed in only 8 weeks thanks to Up-Right's mobility and rapid assembly!"

Stairways are taken in stride . . . legs instantly adjustable for perfect leveling of platform.

UP-RIGHT SPAN SCAFFOLDS

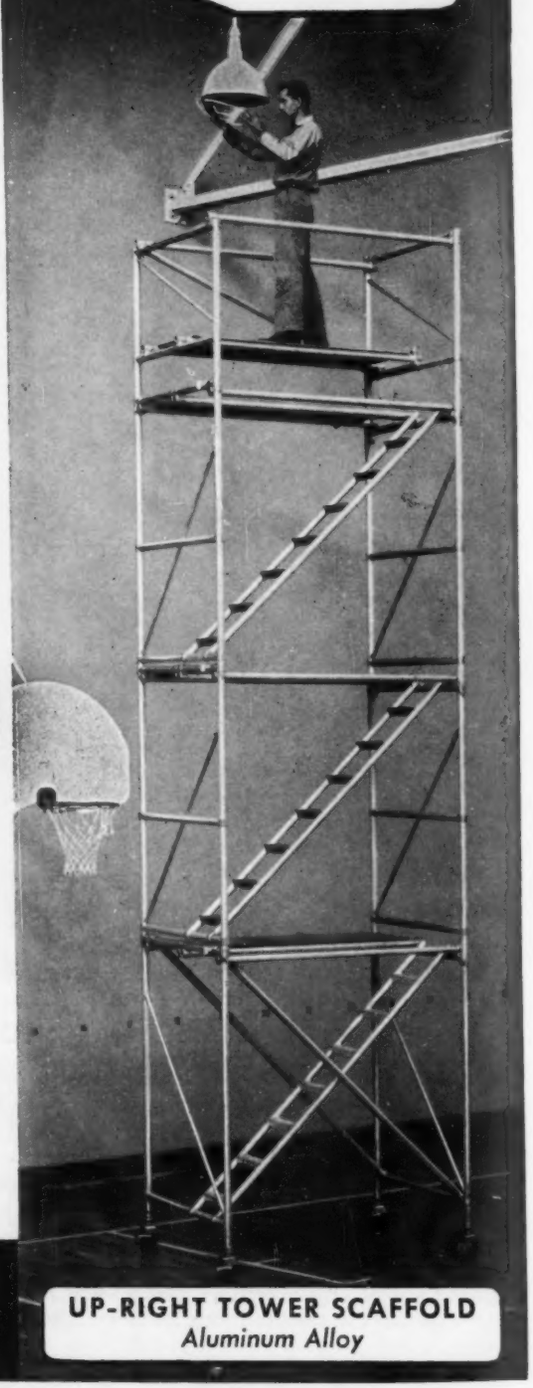


Write for descriptive circular!

"Two 10 ft. span scaffolds pay for themselves on any school paint job of 6 rooms or more," *says Leonard T. Anderson, painting contractor, Turlock, California.*

"UP-RIGHT" SCAFFOLDS

DEPT. 158 · 1013 PARDEE STREET · BERKELEY, CALIFORNIA
FACTORIES: Berkeley, Cal. and Teterboro, N. J. Offices in all Principal Cities



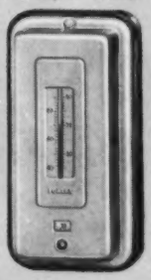
UP-RIGHT TOWER SCAFFOLD
Aluminum Alloy

ST. PATRICK HIGH SCHOOL, CHICAGO

Architects: Belli & Belli • **Engineers:** W-B Engineering Co. • **Contractors:** W. T. Mahoney & Sons, Inc.; Plg., L. J. Keefe Co.

Quadrangle with reflecting pool. Faculty building left facing south has blue porcelain enamel panels, clear glass and blue green fibre glass drapes. Chapel, in center, with plastic sky domes is connected by stained glass cloister to school building right. North exposure of the school has clear glass and gold colored fibre glass drapes.

Dramatic 70 ft. high cross at main entrance is stainless steel. Drapes behind clear glass windows are blue green fibre glass. Yellow terra cotta panels have religious insignia in black. Colors thruout the buildings including the gym are attractive.



Gymnasium type guard for thermostat

No Danger of Scalding Showers, Water Economy, too is obtained with Powers Thermostatic Control for 50 showers.

No Losses from OVER-heated Water.
Hot water generator also is Powers Controlled.

(c25)

POWERS Automatic Temperature Control

Is Used Throughout this Colorful Modern School

for the Heating and Ventilating System, Hot Water Generator and Shower Baths

Utmost Fuel Economy, Thermal Comfort and Convenience are assured here with a Powers Control System. Users often report 25 to 50 years of reliable service with a minimum of repairs.

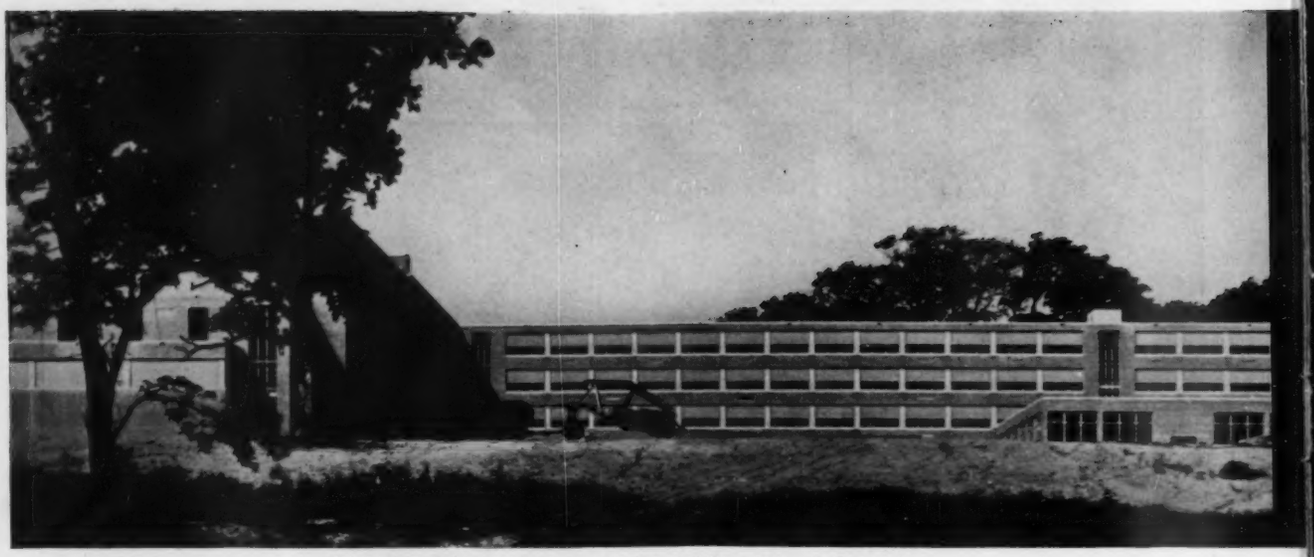
For more than 60 years the name POWERS has stood for quality temperature control, proper installation and SERVICE if required.

Next time a problem of temperature or humidity control arises call POWERS. No other single firm makes a better line of thermostatic controls for heating, air conditioning, hot water generators and all types of shower baths.

THE POWERS REGULATOR COMPANY

SKOKIE, ILL. • *Office in Chief Cities in the U. S. A., Canada and Mexico*

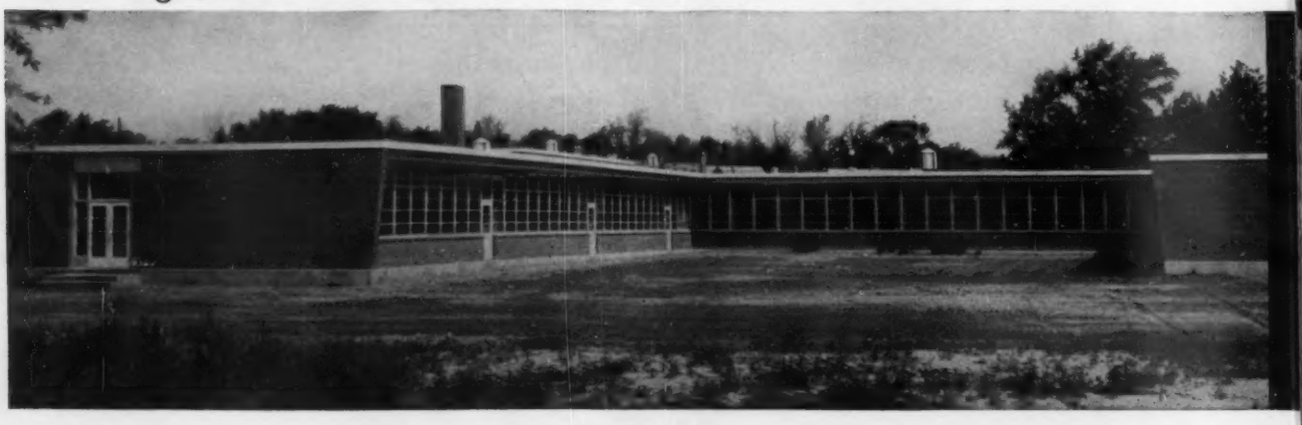
Over 60 years of Automatic Temperature and Humidity Control



Maryland — Catonsville High School, Catonsville, Md. Architect: James R. Edmunds, Jr., Baltimore, Md. Contractor: Costanza Construction Co., Baltimore.

These deluxe windows give you a lifetime finish that never needs painting...plus the strength of steel!

Pennsylvania — Darby Elementary School, Darby, Pa. Architect: Horace W. Castor, Philadelphia. Contractor: Sidney Elkman, Philadelphia.



Extra Quality*

OVER-heated Water.
Hot water generator also is Powers Controlled.
(c29)

Over 60 years of Automatic Temperature and Humidity Control

Michigan Fairview Elementary School, Lansing, Michigan. Architect: O. J. Munson, Lansing. Contractor: Granger Brothers, Lansing.

RESULT—*the lowest lifetime maintenance costs of any windows on the market!*

Fenestra* Galvanized-Bonderized Steel Windows are made of solid bar steel sections, for the strongest possible window construction. Steel is noncombustible, and is the most fire-resistant material for windows . . . hardware never pulls off . . . steel offers ideal putty adhesion . . . no glass breakage resulting from expansion and contraction.

And all these wonderful qualities of steel are permanently preserved by an exclusive *double* protective coating. Super Hot-Dip Galvanizing alloys a thick zinc coating with the steel. This is done in Fenestra's own special plant—the only one of its kind in the world. Then a process called Bonderizing adds a nonmetallic coating over the zinc. The result is a handsome silvery-looking finish that protects the windows for life, *without painting!* And the cost of this modern, durable finish is as little as the cost of two inside-outside field coats of paint. Imagine the year-after-year savings in painting costs alone!

*®

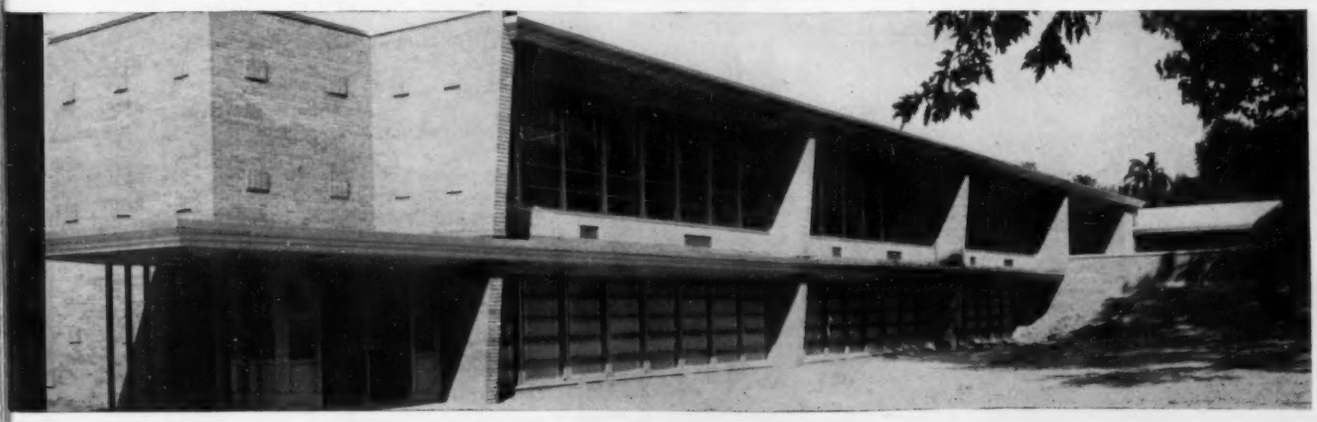
For complete information, contact your local Fenestra representative. He's listed in the yellow pages of your phone book. Or write for our free booklet on Fenestra Super Hot-Dip Galvanizing and Bonderizing. Detroit Steel Products Co., Dept. AS-8, 2256 East Grand Blvd., Detroit 11, Mich.

Fenestra GBS INTERMEDIATE WINDOWS

GALVANIZED-BONDERIZED-STEEL — THE STRONGEST MATERIAL, CORROSION-PROOFED FOR LIFE!

ARCHITECTURAL, RESIDENTIAL AND INDUSTRIAL WINDOWS • METAL BUILDING PANELS • ELECTRIFLOOR® • ROOF DECK • HOLLOW METAL SWING AND SLIDE DOORS

Illinois Monroe Avenue School, Peoria Heights, Ill. Architect: Lankton & Ziegele, Peoria. Contractor: Mehlenbeck Bros., Peoria.



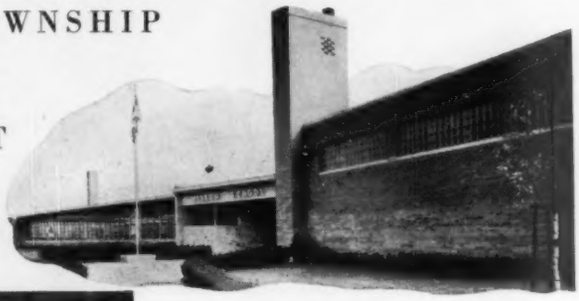
Adaptable, Economical

HEYWOOD-WAKEFIELD
EST. 1826

The ORIGINAL Tubular Steel School Furniture

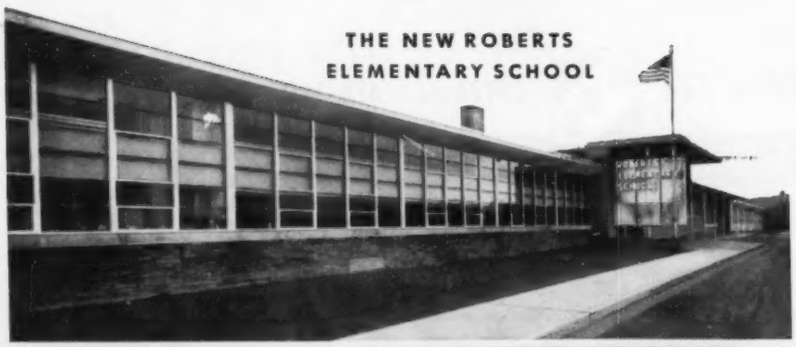
Extra Quality* Heywood Furniture

THROUGHOUT THE RAPIDLY EXPANDING PENN TOWNSHIP SCHOOL DISTRICT



THE NEW HEBRON SCHOOL

THE NEW ROBERTS ELEMENTARY SCHOOL



During the past six years Penn Township School District has added 45 new elementary classrooms to its facilities. In selecting Heywood furniture, Superintendent John H. Linton, Ed. D., and Architect Joseph Hoover sought flexible units which could adapt to many varied classroom needs, and durable units which would require a minimum of maintenance. Over 11,000 pieces of Heywood-Wakefield Tubular Steel Furniture are now in service in this progressive school system. Installations were by the Hughes-Ogilvie Company, Heywood distributors, Pittsburgh, Pa., in cooperation with the Heywood-Wakefield Eastern Headquarters, One Park Avenue, New York.

★ ★ ★

*Extra quality design and construction features of Heywood-Wakefield Tubular Steel Furniture are fully described in the new School Furniture Catalog. Write for your free copy, today. Heywood-Wakefield, School Furniture Division, Menominee, Michigan; Gardner, Massachusetts.

Phonic instruction cannot give the student the meaning of a word. All that it can do

ing starts with a meaningful idea to the individual writing the word, the use of

THE AMERICAN
School Board Journal
A Periodical of School Administration

AUGUST 1955

The Place of Phonics in the Reading Program*

PAUL S. ANDERSON

Curriculum Co-ordinator
San Diego County Schools
San Diego, Calif.

Teachers, parents, and administrators are asking about the importance of phonics in reading instruction. Is it a return to "old-fashioned" fundamentals? Are we sacrificing much that we have learned about child development? Has there been educational research that gives direction to this practice? Is this simply a shift to a new fashion in education?

The words, phonics and phonetics, are derived from the Greek word (φωνέω) phono which means sound. It is more accurate to use the word phonetics in describing the speech sounds of our language. There is an international phonetic alphabet that has a separate symbol for each sound. The English language uses fifty sounds normally and three more in dialects. The International Phonetic Alphabet expresses these sounds in 18 vowel sounds, 5 diphthongs, and 29 consonants.

The English language uses the same letter to spell different sounds and spells the same sound in many ways. The sound "s" may be spelled as: s in bus, ss in kiss, sc in scene, se in vase, ce in face, ps in psalm, st in listen, sch in schism, x in six, sw in answer, or c in city. In the words island and corps it is silent. The combinations of vowels are perplexing: ea has such sounds as clean, bread, break, hearth. Final "e" is generally mute and is supposed to affect the preceding vowel as van, vane, rob, robe; but we have done, love, gone, come, some in which the change does not appear.

A phonics program in reading is designed to help students use the sounds represented by the letters of our alphabet in order to pronounce and read the printed words. One hears the expressions, "We use phonics" or "We study phonetics," in reference to the same instructional programs and the two words are identical in the minds of many teachers.

Usually interest in phonics is related to the big problem presented by the reading difficulties experienced by children at all levels of our education program. It is well to start this discussion with a review of reading practices in the United States and the place of phonics as an instructional tool.

Practices in Teaching Reading

In the world today there are only seven languages that express themselves in nonphonetic writing. In all other nations the letters used in writing express sounds used in language. In Spain, Italy, and Holland, to mention a few, initial reading instruction is still through the alphabet. This close association with language can be observed by the fact that when we find something in print which we cannot decipher we ask, "What does it say?" not "What does it read?"

For many years the New England Primer was used for initial reading instruction. This book was simply an alphabet book with text that carried religious instruction. It started with the letter A and the text was "In Adam's fall we sinned all." There is little wonder that the soldiers of the Revolution were functionally illiterate.

Then there was a change with an effort to use text more childlike in character. However, there was still a close phonetic control. Stories were constructed of "family words" such as can, man, fan, dan. Children read selections like this: Fanny fans Dan. Dan does not fan Fanny. Does Fanny fan Dan?

In more recent years these books were replaced by material that stressed word recognition by sight. Sometimes phonetic practice was given after vocabulary development. Often it was never given. The sight method required the use of a limited vocabulary since each word was memorized individually. In order to help this memorization process great emphasis was placed on repetition of word forms.

As this method developed it was observed that some words were more easily remembered than others. Usually these words had definite meanings or had a shape or form that assisted memory association. The word "Oh," for example, is not an especially useful word in reading but its shape is easily remembered. So we find stories that read, "Oh. Oh. Oh." "Jump, jump, jump." and for variety, "Oh, jump, jump."

In spite of the improvement in illustration, it has been suspected that the stories with such meaningless repetition are not any more interesting than the romance of Fanny and Dan. Teachers have tried many ways to get away from the effect of this automatic repetition. Some have advocated the wide reading of many preprimers. Of course, this violates one of the basic situations for success in the sight method because the vocabulary presented in preprimers does differ. Indeed 20 preprimers could expose the children to as many as 160 new words. If one observes such a class it is obvious that in some cases the teacher is doing most of the reading, since she is constantly "pronouncing" a new word that the child is pointing to in his book.

Mechanical and Thought Process

Reading is both a mechanical and a thought process. At the beginning stage it is especially dependent upon mechanical skills that must be learned. Instruction in phonics helps the child use the printed letters both as sound and visual clues.

*This paper was prepared at the request of the school trustees of San Diego County, Calif., and read at an official meeting.

Phonic instruction cannot give the student the meaning of a word. All that it can do is to teach the child how to reproduce the sound expressed by the printed word. The meaning of that word will be determined by his language association with the word concept. Words presented by the sight method or memorized as a whole sometimes result in the child calling the word correctly when he sees it in print without knowing its meaning or recognizing what the sentence is saying. The same thing, which is called verbalism, can happen when the reader is able to pronounce a word correctly through phonetic analysis. Phonic instruction assists in mastering the reading process as an act; it does not assure understanding.

Dr. McKee has used an unusual device to remind us of the mechanical difficulties found in the reading process. He created a primer with an interesting story and controlled vocabulary but used a strange alphabet. For example, the first page showed a picture of a boy with a bow and arrow. Under it were the symbols ⊥+ʔ which stood for his name *Sam*. The next page showed his father with the symbols ∨+∨∨ƨ meaning Daddy. On the third page the new word was ∨≠≠ʃ (look) introduced with the two words already used. Immediately adult readers of this strange primer begin looking for memory clues. Children will sometimes remember a word by the picture on the page, the way it is introduced by the teacher, or by some association with the word itself. One useful clue is an understanding of the sound of the first letter. Of course, this can become a visual clue by remembering the shape. Some children use phonics visually rather than as sound symbols. Dr. Dolch has pointed to the fact that even in the sight method many children found help by noting phonetic similarities and using them for identification purposes. Unfortunately, they sometimes figured out devices that were neither consistent nor added to their reading efficiency.

Phonics in Reading

Classroom use of phonics in association with reading involves at least three steps:

Auditory discrimination of individual sounds

Recognition of visual symbols of individual sounds

Combining sound and visual symbols to form a meaningful word

Auditory discrimination of individual sounds may be illustrated by the practice of helping pupils associate the sound of those letters of the alphabet that with great frequency have only one sound. The sound of **m** as heard at the beginning of milk, mother, man seems to be one of the easiest of such letter-sound associations. Others would be **b** as in baby, **d** as in dog, **p** as in paper.

Some blends which use two letters to express a sound are frequently used and are simple enough to be helpful. These would include the **st** as in stop, **bl** as in blow, and **pl** as in play.

There are differences in practice concerning the way in which students are taught how to recognize the visual symbols of the sounds. There are some who

avoid teaching the name of a letter until the sounds it represents are recognized. This is done to avoid possible confusion between the pronunciation of the letter and the way it is used in a word. The **t** in *the* or the **c** in *cat* illustrate this problem. However, it is a growing practice to use the names of the letters as a means of communication between the teacher and student. The teacher will call attention to the letter at the beginning of a new word to be read. Let us suppose that the new word is gate. The teacher will ask the name of the letter of the word. After **g** is named, she will ask what other words the children know that start with that letter. They might mention girl, go, game. Then using other word attack skills such as the meaning of the sentence, configuration, pictures, or sight words, the children combine clues to read the new word. Obviously, the use of phonics to attack a word that has no meaning in the speech of the child will result in parroting words rather than reading.

In order to read many of the words which constitute the major vocabulary used in primary reading, a knowledge of such phonetic clues is an important and consistently valuable skill. Indeed not to use phonetic clues would ignore the value of having an alphabet and would doom us to teaching each word as an ideograph such as is found in Indian and Chinese writing. It has been claimed that our language is 85 per cent phonetic. The problem of determining such a percentage may be indicated by a few words. If we pronounced know as **k** plus **now** it would be 100 per cent phonetic. Does the fact that the **k** and **w** are silent make it 50 per cent phonetic? The word **phone** could be spelled as **fon**. As such is it more phonetic? The word **pneumonia** without the first letter would be phonetic to a high degree. Examined in this way our language may be more phonetic than if we trace the inconsistencies within the vocabulary of the primary reading program. At that stage one phonetic impunity makes the word a special problem for the beginning reader.

Phonics in Spelling

It will avoid some confusion to note that the use of phonics in spelling differs from its use in reading. In reading a meaningful recall or thought is stimulated by a printed language symbol. In spelling we start with a meaningful language concept for which we select a symbol that will express the idea to others. Since spelling starts with a meaningful idea to the individual writing the word, the use of phonics is a mechanical and relatively simple aid. In reading the emphasis upon any mechanical aspect of the process cannot be isolated from the problem of securing meaning from strange or new symbols.

Sequence of Teaching Reading

At present the following sequence of learning has received critical approval by many reading authorities. This is here presented separated from structural analysis which must parallel classroom practice in phonics.

Kindergarten or Preparatory Period

Listening to and understanding oral language
Recognizing names that begin alike
Recognizing the beginning sound of a word
Recognizing letters and word differences
Matching letter and word forms
Ability to express speech sounds and use language

Grade One

Ability to hear and recognize in words the following single consonants in the initial position: **b, c** (hard sound only), **d, f, g** (hard sound only), **h, j, l, m, n, p, r, s, t,** and **w.** Omit **k, v, x, y,** and **z.**

Ability to hear and recognize in words the speech consonants **ch, sh, th,** and **wh;** the consonant blends such as **sk, sm, sn, sp, st, sw, tw, br, bl, gl, pl, fr, tr** in initial positions.

Any one of the initial sound items may be introduced as soon as the pupil knows two or more words which begin with that item.

Grade Two

Add **v** and **y** to initial consonants to be known and later **q** and **k.**

Continue learning of blends **gr, fr, cr, dr, bl, cl, gl, sw, tw, scr,** and **thr.**

Emphasize the short vowel sounds.

Introduce the long vowels. (The terms *vowel, long* and *short* are used.)

Teach the speech consonants in final position.

Introduce vowel blends **ow, ou, oi, oy, ew, au, aw, oo.**

Teach the double vowels **ai, ea, oa, ee, ie, ay, oe.**

Grade Three

Teach soft **c** and **g.**

Teach **x** and **z.**

Introduce related but nonphonetic words: though, although, dough, bought, ought, brought, fought, thought, etc.

Grade Four and Above

In the intermediate grades there are children who have partially mastered some of the elements that were introduced earlier and others who have not been taught the use of phonetic clues. There is evidence that some children do not really understand the relationship of the sounds in our language and the reading symbols until fifth grade. These are the individuals of normal ability who suddenly start to read with ease at that level.

The first step at this level is to test and discover the sounds and blends which the student uses with consistency. This can be done by asking him to identify the written symbols for sounds that he hears in words as the teacher pronounces them. He might be given a list of words such as: mother, father, child, should, chance. The teacher would ask him to underline the words that start with the same sound as *church* and *change*.

Once the elements are identified which he knows and does not know, he can be helped to master those skills in which he is deficient.

Limits of Phonics

In any discussion of phonics one must mention the limitations.

First, our language is far from being phonetically pure. (This so disturbed George B. Shaw that he left his fortune to reform the language.) Second, phonetic analysis is not equally helpful to all children. Third, there are many teaching practices in phonics that are not of great efficiency.

Research has indicated that the following practices should be used cautiously by the teacher.

Finding the Little Word in the Big Word

The practice may be illustrated by some of the "phonetic families." The association between hand, band, sand, land, or will, fill, sill, dill, kill, mill, bill, hill, jill, pill, till is one of common endings. If the new word is hand, the teacher would help the child identify the sound of **h** then note that the rest of the word was one which they knew. Sometimes finding the little word will help the child recognize the first syllable or the root word. Examples would be playful, children, helping.

During the period when the child is mastering the skills of word recognition the generalization that finding the little word in the big one will help identify a new word more frequently misguides the child rather than identifying the word. Errors in pronunciation and confusion as to meaning are the results of such practice. Finding the little word in the following illustrates the pronunciation problem: **an** in Jane, **me** in come, **moth** in mother, **in** in find, **it** in white, **our** in four, **ants** in wants, **fat** in father, **sin** in sing, **is** in surprise, **at** in watch, **nest** in finest, **read** in spread. Several of these examples illustrate the meaning problem. If we remember that the word is completely new to the child, we can sense the confusion if we think of the meanings that we are putting into the new word by finding the little word even in those cases where it helps the pronunciation: lay (meaning to place) in play, ill (to be sick) in will, member (to belong to a group) in remember, trip (an excursion) in strip, itch (skin irritation) in kitchen.

After stressing meaning in reading, it must be of questionable help to ask a child to use nonsense meanings to identify words.

The identification of word roots is another skill that is valuable but is taught as such rather than as finding little words in new ones for the purpose of identification.

Sounding Each Letter in a Word

There was a time when the child was asked first to spell, then pronounce, and finally read a new word. With a word like dog the child would first say the letters, **d-o-g,** then sound each letter, da, ō, gu, before combining them in the sound of dog. Such a practice not only produces sound absurdities due to the spelling of our language but also leads to slow mechanical reading. In order to read a number aloud such as 1792, we are forced to read each number separately and say, "One thousand, seven hundred ninety-two." The task of reading each letter separately and combining them into a word is almost as slow.

Using Rhyme as a Word Analysis Clue

Children enjoy finding rhyming words and it is definitely a part of their language skills. However, as a means of identifying a new word it lacks consistency as a single skill. If the new word were **shoe,** how does it help a child visually to call attention to the fact that it rhymes with **blue** or **do?** With beginners in reading, noticing common rhyme and structure such as toy and boy will help isolate a beginning sound as the way words are different.

During instruction teachers will sometimes tell a child who is faced with a phonetically impure word that it rhymes with another in order to give a sound clue. If the word were **rough,** the teacher might say that it rhymes with **cuff** or **muff.** This in no way gives the child any independence with regard to the word unless he remembers the rhyme as a mnemonic device. It would be better to give other word attack skills for such words.

Isolating Sound Drill

Teachers often do this but all research indicates that it is less efficient than when immediately associated with words. This means introducing only the more consistent phonetic elements in situations immediately useful in reading. We now know that even isolated drill on the facts of arithmetic can interfere with a meaningful understanding of numbers. In a similar way a separate phonics program may, in the child's mind, be unrelated to the problems in reading.

A knowledge of the phonetic nature of our language and the phonic skills of reading will help many children master the reading process. A method that uses phonics uses other word attack skills as well and shows the child how to use one skill in relationship to another. Just as speed is of limited value if it interferes with understanding of what is read, phonics which enables a child to pronounce words that are meaningless is without educational justification. The object of reading instruction is to enable the child to interpret written material in a way that will help him in his personal and social development. This involves reading for information, direction, appreciation, and recreation, both before and after mastery of the reading process. The proper understanding and use of the phonetic elements of our language are essential factors in the reading instruction of most children.

And so in answer to the questions of parents, teachers, and administrators it may be said that we teach phonics today neither as a new fashion nor as a return to the past but in recognition of the nature of our language and the help it gives many children as they learn to read.

BIBLIOGRAPHY

Latting, Lucile H., *The Program in Word Analysis,* State Department of Education, Denver, Colo., 1950.

Barrows, Alvina T., *What About Phonics?,* Association for Childhood Education International, Washington, D. C., 1951.

Durrell, Donald D., *Building Word Power,* World Book Company, Yonkers-on-Hudson, 1945.

McKee, Paul, *The Teaching of Reading in the Elementary School,* Houghton Mifflin Company, 1948.

Turrentine, L., "Current Trends in the Field of Phonics," *Texas Outlook,* January, 1939.

Agnew, D., *The Effect of Varied Amounts of Phonetic Training in Primary Reading,* Duke University Research Studies in Education No. 5, Durham, N. C., 1939.

Tiffin, J., and McKinnis, M., "Phonic Ability," *School and Society,* February, 1940.

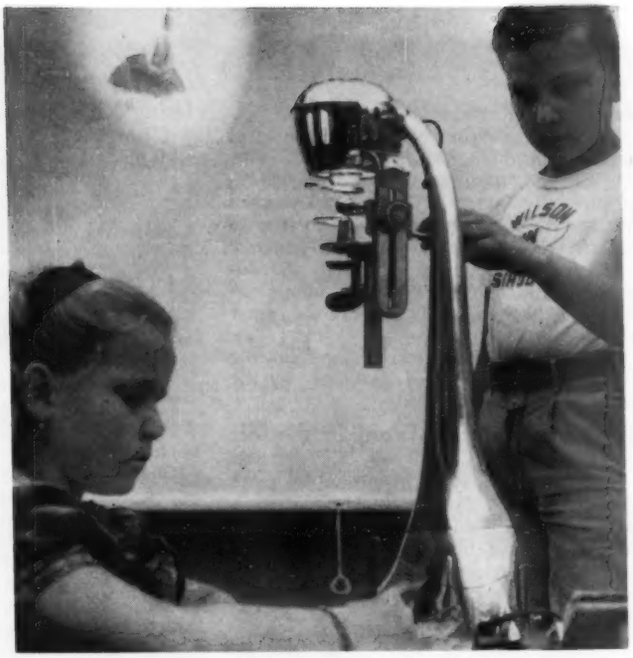
James W. Whitehead, regional co-ordinator and past director of the National School Boards Association, Inc., is shown here receiving the Distinguished Service Award of the Massachusetts School Committees Association from Charles Gibbons, Republican floor leader of the state legislature.

Does our present grading system ignore

Bellflower Challenges the Gifted

W. NORMAN WAMPLER

Superintendent, Bellflower City School District
Bellflower, Calif.



Gifted children in the Bellflower schools learn science through the use of the micro-projector.

The board of education of the Bellflower City School District began the 1954–55 school year with a definite policy to provide increased challenges for its more able pupils. A "Consultant for the Gifted" was added to the supervisory staff to coordinate activities.

The district first sought to identify those with unusual ability during the school year 1953–54. Pupils with high academic potential were selected through teacher evaluation and through test data available during that period. The Guidance Department conducted additional tests for all pupils whose IQ's were 130 or more on the basis of group testing. The Primary Mental Abilities Test published by Science Research Associates of Chicago was used in this instance. The results were checked against the data already available, and final selection was made. This testing program was limited to pupils in grades three to eight. The screening process resulted in a group of 82 children identified as having high academic potential.

The district, believing that enrichment provides the greatest opportunity for total development of all children, has not separated these bright pupils from their fellows. In each elementary building, however, all those of any given grade level having high academic potential (and designated as "HAPs") were placed with one teacher. Thus, the teacher had a "core" of gifted children and still had a good cross section of ability in his classroom. Children presenting unusual problems were removed from such classes in order that teachers working with the gifted would have greater time with such special groups.

No Complete Segregation

In working with these bright children, the district has not sought to distinguish sharply between the "HAPs" and others with slightly less ability. In many activities both within the classroom and on special occasions, other relatively able pupils have participated in the same activities.

The Consultant for the Gifted Child Program has held frequent meetings with all teachers who have "HAP" children in their classrooms. Guide lines for enrichment of the program have been developed. At each grade level, teachers, working with the Consultant, have developed suggestions for especially challenging activities for these most able pupils.

Additional equipment and supplies have been provided for classrooms included in the program. Science kits have been assembled and are being made available for these able children. Enriched library facilities, in keeping with the ability of the special group, have been developed for classroom use. Opportunities for experimentation in other subject areas such as foreign language, debate, and speed reading are in the planning stage.

Special Field Trips

On occasion, the Consultant has taken groups from several buildings in the district on special field trips, For example, an excursion to the Huntington Library to study early printing methods and first editions was undertaken. The information gained on these trips was used in the social studies periods and was presented to entire classes for comment, study, and evaluation. On other occasions, the Consultant has accompanied regular teachers on field trips involving total classes. In these cases the Consultant has worked with the brightest children on special aspects of the trips.

The testing program revealed that, in some instances, pupils of unusual ability have been performing at average or below average achievement levels. Others of this group have been handicapped in the past by personality traits which have been preventing them from attaining leadership. The new program is making every effort to broaden the interests of the most able, guide them to an accomplishment level consistent with their ability, and give each child group leadership opportunities as part of the total educational program.

J920 Pioneers – U.S.
Coffman, Raymond Peyton
Famous pioneers for young people, by Raymond Peyton Coffman and Nathan G. Goodman. N.Y. Barnes (1945) 129 p. illus.
Here We Play
J Burton, William Henry

A mastery of the Dewey Decimal System of classification help gifted children develop skill with books.

as many children of the same age and often as well as those who are one or even two years older would do on the same or similar subject material.) For 9-

gress in juxtaposition correlated with individual aptitudes, the class average will be raised.

The above average or gifted student is

("S") for you, and that your game was typical of a "4" performing level which is *thoroughly acceptable and expected,* considering your stage of development, co-

Does our present grading system ignore the relation between student achievement and ability? To correlate these two, a superintendent suggests . . .

A Dual Mark for Reporting Pupil Subject Accomplishment

KENNETH A. McDONELL

**Superintendent, Union Elementary School District
Los Gatos, Calif.**

One important feature of the reporting system used in the Union School district of Los Gatos, Calif., is the dual mark which designates both individual progress and relative achievement in subject matter.

The dual mark provides two kinds of competition, "horizontal" and "vertical." A letter symbol is used to report individual progress related to ability. This, in effect, provides at least a theoretical foundation for competition *with those of like ability* ("horizontal" competition) throughout the nation, assuming that communities and learning requirements are becoming standardized. A number symbol designates relative standing in terms of a *range* of "age grade" levels of achievement. This provides the familiar "vertical" competition against those of greater difference in ability theoretically *on a national basis.*

Closing the Gap

The system attempts to reach into basic problems of education. One of these is the need for closer correlation between student achievement and ability, particularly at the higher levels of ability.

In the sense of full usefulness to his country, a person is unsatisfactory if he is not producing or achieving at a level at least approaching his capabilities. A student who "coasts" in school at quarter speed is an unsatisfactory student compared to those of like ability who *are* producing.

To reinforce this point of view, the student who has a higher mental maturity or mental age and produces only at a lower level is graded "U"—unsatisfactory. This has proved effective in cases where the attitude prevails that "I am doing as well as a lot of students" or where outside activities are interfering with achievement. In a few cases, of course, there are manifold reasons of an educational, emotional, or environmental nature causing the lowered output.

The student's level of performance, objectively determined by careful definition of performance *range* within a span of age-grade norms, is indicated by numbers. In the case of the "brighter" youngster who is not trying, the number usually would be a "3" or "4." His dual grade mark then, in a particular subject, would be "U4" or "U3."

The "U" describes the youngster as being "unsatisfactory" in terms of his ability to do better; the "4" denotes below-grade performance *range* or level of performance. In terms of "competition" this says that he is not competing at the level he is able to turn out. Therefore, he is unsatisfactory because others of like ability *do* turn out better work.

In order for this "brighter" youngster to receive a "S" ("very good" to "excellent") for him and those of similar ability (or readiness), he would have to produce within a range of grade or year level performance described as "performance level" "2" or "1," or "2" and occasionally "3," worked out by "formula" based upon his mental age or IQ.

The "S" Concept

The system attempts to establish in the minds of teachers and parents the "normalcy" of different developmental patterns, presently indicated maturities or immaturities, and lack or presence of ability or readiness in certain areas, all in children of the same chronological age. This is done through the use of "S1," "S2," "S3," or "S4," the "S" indicating "satisfactory" or "very good" to "excellent" for the individual student and others of like ability or readiness, the "1," "2," "3," or "4" indicating relative vertical standing.

Recognized educational and psychological data show that in grades one to three the span of "usual" performance among students is as much as four years. In grades four and five this span can be four to six years; and in grades six to eight, four to eight years. Added to this are statistical or empirical data from many sources which tend to show that a majority of children of greater ability fail to achieve as well as many children of slightly less ability. Also, there is considerable overlapping of achievement of those whose IQ (or, in cases of overage or underage, the MA in relation to Average Chronological Age of the grade) is closer to 100. Also, allowance logically must be made for variations in individual performance from day to day or week to week. Add to these certain variables such as difference in teacher experience and lack of uniformity of teacher standards for grade level or year level typical performance in each subject area.

The following number pattern has seemed to emerge over the past several years as fulfilling requirements of necessary flexibility to cover the points mentioned.

"Performance Levels" Defined

In terms of student's ability he would perform at one of the levels (below) with occasional performance at either a higher or lower level as an acceptable alternate.

Performance Level (or Range)

"1" *Generally fast working* (and for 11- to 14-year-olds), ranging approximately more than two years above average age-grade level in fundamental schoolwork accomplishment. (Doing about as well as many children who are more than two years older would do on the same or similar subject material.) For 9- to 10-year-olds, the range of performance would be *two* or more years above. For 6- to 8-year-olds, this range would be more than one year advanced. In some subject areas and in some classes there would be no youngsters working at this level. In other classes there might be two or four youngsters who would maintain performance at this level in a certain subject area.

"2" *Medium to medium-fast working speed* (and for 11- to 14-year-olds), ranging from approximate grade level to one and two years above average age-grade level for the subject. (Doing about as well

as many children of the same age and often as well as those who are one or even two years older would do on the same or similar subject material.) For 9- to 10-year-olds, performance would range from average to above average. Twelve to 15 youngsters out of a class of 30 can be expected to perform at this level in a subject.

"3" *Medium to slower working speed* (and for 11- to 14-year-olds), ranging from approximate grade level down to one or two years *below* average age-grade level accomplishment in the subject. (Doing about as well as many children one or even two years *younger* would do on the same or similar subject material.) For 9- to 10-year-olds, the performance would range from average down to one or occasionally to two years below. For 6- to 8-year-olds, the range would be average and below average. Approximately 14 to 20 youngsters could maintain performance in a subject at this level.

"4" *Slow working* (and for 11- to 14-year-olds), ranging more than two years *below* average age-grade level accomplishment for the subject. (Doing about as well as many children who are more than two years younger would do on the same or similar subject material.) For 9- to 10-year-olds, the performance would range two or more years below. For 6- to 8-year-olds, the performance would range more than one year below. Approximately 4 to 10 youngsters would maintain performance at this level.

The Formula

If the ability of the child is fairly well established by teacher and parent observations validated through mental test data, then the expected performance levels (one main level and one permissible alternate) are determined for those of such ability. If during the report period the child performs adequately within these *ranges* of formance, then his letter grade mark is "S." His number grade mark would be the level maintained.

Teachers use a chart in applying the "formula." A working version follows:

Indicated Ability (for fundamental subjects)	I.Q. (or ratio of M.A. to Av. C.A. for grade level)	Performance *Ranges* or Levels Expected Probable	**Acceptable Occasional Alternate
A	*140 and above	1	2
B	*139–*128	2	1
	*127–*110	2	3
C	*109–* 97	3	2
	* 96–* 85	3	4
D	* 84 and below	4	3

*Teachers may use a few points higher or lower in determining expected performance levels, if in their judgment the ratings are too high or too low.

**Dependent upon extenuating circumstances — i.e., instructional facilities, special pupil aptitude or interest, etc.

Under this system, instruction is essentially instruction of groups within each classroom. A teacher is not required to break her back trying to bring all children up to a line average for the grade or the subject, leaving largely untaught those pupils who have completed daily assignments of grade level caliber. Such a practice gives some prima facie evidence to the charge of "education for mediocrity." Instead, if the levels within the room progress in juxtaposition correlated with individual aptitudes, the class average will be raised.

The above average or gifted student is not restricted in subject-matter learning except by restrictions imposed through practical limits of facilities available and the prescribed course of study. First looks at some subject areas do not spoil detailed experience repeated when the student is older but rather whet the appetite for these later experiences.

Some parents and teachers recommend standardizing traditional "A," "B," "C," "D," grade marks along the lines of the "1," "2," "3," and "4" using S/A, S/B, U/C, S/C, etc., instead of S1, S2, S3, etc. This has been answered by listing some of the wide variations in the use of the "A," "B," "C," such as: "A" or "B" used for individual improvement over previous work regardless of grade level standards; "A" or "B" grades given for quality regardless of the amount of variance in time spent; grading on the "curve" regardless of difference in course content for the same subject area, and regardless of previous experience (or lack of it) of the students; percentage made on teacher prepared tests with no correlation between other teachers' tests; an "A" or "B" given in a small school or community where most students are nonacademic having little relation to an "A" or "B" given in a large school or community in which academic standards may be higher (or lower); and grades given as rewards or penalties for conduct or misconduct.

In view of the above, standardization of the use of "A," "B," "C," and "D" would be most difficult. With another set of symbols, however, standardization on a national basis would become feasible. An approach utilizing national norms, standardized grade level materials, and carefully defined performance ranges would tend to reduce errors, improve instruction in relation to ability and readiness, and reduce any stigma attached to certain grade marks.

Like a Golf Score

An analogy serves to illustrate an argument for preferring to use "4" over a "D" with the latter stigma of failure.

How's your golf game? Depending upon your state of development and ability you perform within a *range* which could be described at a certain level, say on "1" — very advanced range; "2" — average to above average range; "3" — average to somewhat below average range; "4" — a less skillful and slower range. Now you have probably played against others having a similar range of golf scores. Some days you say, "I played a good game today" and then, thinking about the professional, add, "for me." Let's say your usual game ranges in the low hundreds. In comparison with your club pro or the best players, and using the more familiar "A," "B," "C," "D," grading system, your today's game is a "D." What about the "D" as a description of how you played that day? Doesn't it make you feel somewhat a failure because of long association that "D" is "barely passing"?

A more accurate description possibly would be that you played a good game ("S") for you, and that your game was typical of a "4" performing level which is *thoroughly acceptable and expected*, considering your stage of development, coordination, indicated ability or learning speed. An "S4" evaluatory description gives a more complete and satisfying picture (in the light of your score) of your individual improvement record (the "S") plus a comparative notation (the "4"), which can be accepted without stigma and the consequences of stigma.

In Summary

The reporting system has done much to produce:

1. A better quality of teaching all children in the classroom within a framework of natural developmental levels (the concept of ability determining expected performance levels; performance level or ranges of performance carefully defined)
2. A better quality of parent-teacher and pupil-parent conferencing
3. An emphasis upon quality *and* quantity of child performance in determining a performance standard
4. A necessary degree of uniformity in grading practices
5. A necessary degree of uniformity in grade level experience from teacher to teacher
6. A decrease in harmful pressures on some children, yet pointing up need for additional stimulation for other children. ("S4" versus "U4"; the "normalcy" of individual developmental patterns, early or late maturities, etc.)
7. A reduction in the stigma of failure and the consequences of such stigma for the less academically able child. (The "S4" concept of acceptability rather than the old-fashioned "D.")
8. Attention to areas where the above average and gifted students can and should be profiting more from school experience — i.e., attempt to bring achievement closer to the level indicated by the mental age.

An American girl studies a bronze memorial to the Japanese scholar, Ninomiya Kinjiro, donated by the graduating classes of the American school in Nagoya, Japan. The school has a total enrollment of 486 American grade and high school students.

The Word

A Multi-Million Dollar School Building Program

JOHN F. DELANEY

Director, Bureau of Public Relations
Chicago Board of Education
Chicago, Ill.

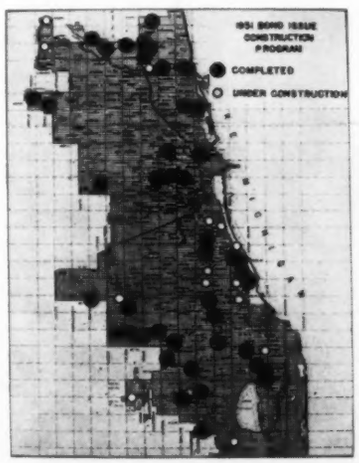
Superintendent Benjamin C. Willis

American men and women have awakened to the needs of our girls and boys for adequate and convenient educational facilities of modern education. Chicago public schools and taxpayers are contributing their portion with a multi-million dollar building program which is well on its way — thus reflecting the trend of the people in the Middle West.

Chicago's General Superintendent of Schools, Benjamin C. Willis, has gained plaudits for his skillful command of an army of architects, engineers, and builders in carrying out two programs of school building in Chicago. Each program contemplates the expenditure of $50,000,000. Already double-shift classes are being minimized; scores of new schools at all educational levels are being built, added to, or rehabilitated, so that overcrowded classes are being reduced, and portions of the rapidly growing city are receiving educational facilities needed — but really not anticipated for years to come. Most important in the program is the economical approach that already has produced 37,000 more seats for public school pupils where 35,000 were hoped for.

Two Bond Issues

Two school building bond issues have been authorized in the past five years by Chicago voters: the 1951 issue of $50,000,000, and the 1955 issue of a same amount. The former is just about completely contracted for — and the new 1955, $50,000,000 building program is expected to be under contract by 1957.



Square Mile Map of Chicago Public School Construction Program

The two bond issues fostered by the people of Chicago, as they well know, will not furnish a panacea for all of future school needs in Chicago. The program will materially relieve a current condition of double-shift classes in many sections of the city, and of overcrowded classrooms generally. Funds from the 1951 bond issue have provided:

21 Newly completed elementary school buildings
23 Completed additions
5 Buildings now under construction
11 Additions under construction
9 New buildings in the planning stage, and
3 New additions in the planning stage

Several millions of dollars have been spent on rehabilitation and conversion of existing Chicago schools, relieving double-shift schedules in crowded elementary schools.

Thirty-one high schools, two junior colleges, and four vocational schools have been partially rehabilitated.

The School-Park Plan

Perhaps one of the brightest educational spots on the Chicago horizon is the co-operation agreement between the Chicago Park District and the Chicago board of education, whereby the grounds of adjacent park sites and those of public school sites will be landscaped and developed for recreational purposes. In a nutshell, the School-Park plan is portrayed as follows: "to provide the needed recreational areas without a great increase in cost to the citizens, it is proposed that when possible and feasible, public school buildings and park and school lands will be utilized for this purpose — by combining functions, utilization of school houses for community recreation, and vacant land around them for outdoor park uses."

One has to be thoroughly advised in setting up an extensive building program because this is not a "buyer's market" so far as educational building construction is concerned. Yet the demand for expansion is so great in many channels, conditions must be met and made the best of.

Consider that from 1934 to 1939, the cost of school building construction was averaged at from 32 cents to 37 cents per cubic foot in the Chicago area; then realize the task that confronts planners of new schools when today, the cubic foot construction costs are estimated at between 90 cents and $1 per cubic construction foot. This is explained, of course, by the present-day "dollar value," increased cost of labor and most expensive construction material.

Today, the school building designer must reduce the height of school buildings, reduce corridor width, and eliminate all ornamental trimmings which were in vogue yesteryear. The designer must create a plain, straight exterior façade, eliminate plastering by substituting paintable concrete blocks, and simplify costly lunchroom facilities. Yet the designer and builder must come up with good substantial buildings soundly constructed.

Educational Study

Necessity also has demanded that the second fifty million dollar school building bond issue be utilized in the expeditious meeting of as many foreseeable educational demands as possible. This has caused a most expert study of the Chicago school needs from the north boundaries of the Windy City to almost the Indiana line, and from Lake Michigan to the western municipal limits.

After perhaps the greatest education needs scrutiny ever conducted in the city of Chicago, Superintendent Willis has received the approval of President William B. Traynor and the members of the Chicago board of education to allot tentatively the 1955 bond issue of $50,000,000 as follows:

New high school classrooms.....	$12,000,000
Vocational and special schools..	3,000,000
New elementary classrooms....	27,000,000
Sites for new school buildings..	4,000,000
Replacements and rehabilitation	4,000,000
	$50,000,000

(Concluded on page 63)

The Word from Washington

Public Education at the State Level

ELAINE EXTON

In the years immediately ahead, state after state will face with increasing urgency the task of reorganizing and revitalizing its administrative machinery to supervise and control the state program of education, according to Fred F. Beach, Chief, State School Administration, and Research Assistant Robert Will of the U. S. Office of Education. They attribute this circumstance to the vast growth and expansion of the public education enterprise to meet mounting demands of an increasing population and an expanding technology, declaring few responsibilities will have larger consequences for the destiny of the whole people.

To provide useful information for states which will undertake this task — and they report many will probably do so in the near future — they carried out a two-year survey in co-operation with the 48 Study Commission members of the Council of Chief State School Officers. This survey constitutes a significant new contribution to school literature on the structure and organization of public education at the state level, how it is controlled, and steps that states are taking to modernize it. The material they have developed adds a new chapter to textbooks in educational administration.

Their publication should be useful not only to state legislatures which face the problem of gearing state educational programs to American educational life in 1955, but to school boards and to members of state regulatory leadership boards and state governing boards because it will help them better understand their responsibilities and duties. The study, and particularly its delineation of the various types of state education boards, has important implications for the intermediate unit of school administration as well as for the basic education structure at the state level.

New Definitive Study Ready

The *State and Education*, which is now available for purchase from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. (about $1 a copy), provides a classification system for state boards of education never previously worked out and makes available in one place information on the distinctive characteristics of different types of state education boards that heretofore has only been available in piecemeal fashion.

The material for this 172-page volume was culled from the statutes and session laws of the 48 states and the territories of Hawaii and Alaska as well as from the annual and biennial reports of the U. S. Commissioner of Education from 1867 through 1954, findings of state education surveys made during the past decade, and other basic studies.

Of special interest to school officials and state school board members will be an appendix providing factual legal data on state level structure and organization for public education in simplified form. This includes an educational structure chart for each state showing lines of appointment or election of (1) members of state education boards for schools and colleges and (2) the chief state school officers.

State education boards are identified and classified according to responsibility for (*a*) schools and colleges and (*b*) supplementary programs. Pertinent information is furnished on the membership and major functions of these boards. The pattern of state organization and control of state schools for the blind and deaf, of public junior and community colleges, and of state teachers colleges are among other topics covered.

Authors of a significant new study of public education at the state level are Fred F. Beach (above) and Robert F. Will (right), chief and research assistant, respectively, State School Administration, U. S. Office of Education.

There were 44 state boards of education in higher education which heads the state cluding 17 for common school systems, 6

Significance of State Boards

Recognizing that the establishment of a decentralized system of common schools in every state with a state regulatory agency heading the system and local governing boards operating the schools within the system "has kept the schools close to the people and has facilitated the conduct of the schools in accord with the needs of the community, *The State and Education* hails this structural pattern of control for public elementary and secondary schools as perhaps "the most significant development in state school administration of the (19th) century" and "one of America's greatest contributions to the science of public administration."

Maintaining that "no problem in state government put American ingenuity to a greater test than the development of the structure and method of control for the common school system," the report makes clear that "it was not an easy task to establish a state system which would allow the people in each school community a voice in the control, management, and operation of their schools and yet insure statewide minimum standards and foster the development of continually improved programs of education."

Acknowledging that "the people did not decide upon boards of education in preference to other types of agencies as their policy-making bodies by chance," the study cites these reasons, which apply to state and local educational boards alike, why "with full knowledge of the criticisms,[1] the people have held firm to the conviction that the board of education system is far superior to any other yet devised."

A board of education is more representative of the total population it serves than is an individual policy-making agent.

A board of education can make wiser and sounder policy decisions than can a single individual.

A board of education acts as a safeguard against the involvement of education in partisan politics and the spoils system.

A board of education is a safeguard against needless disruption in the continuity of an educational program.

A board of education provides an economical means for management and control of the educational program.

A board of education provides a safeguard against fraud and malfeasance.

Improvements in the Past Decade

Underscoring his investigation's findings that "the ten years between 1945 and 1955 may well mark the beginning of a new era in state school administration," Dr. Fred Beach said that "during this period every state made fundamental changes in either the structure or the internal organization of its state educational machinery in order to provide greater leadership to the common school system," pointing out that "significantly, the initiative in this movement was taken by the chief state school officers."

Establishing state boards of education where there were none, increasing the number of state boards elected by the people, reducing the number of *ex officio* boards and board members, expanding the state board for education to become the state board for vocational education, too, putting more state school superintendents in office through appointment by the state board of education rather than through election by the people or appointment by the governor, are some of the noteworthy advances in improving state departments of education occurring in the past decade. A few statistics from the study pointing up these trends follow:

[1]It has been argued, as the study notes, that boards of education involve unnecessary expense, frequent delays, and diffusion of responsibility; that board members are sometimes selected by a small proportion of the electorate; that the individual policy-making agent is able to arrive at decisions and to get things done rapidly; and that a board does not provide as suitable a means for co-ordination of education with other government services as does the individual policy maker.

TABLE 9.--NUMBER OF STATE EDUCATION BOARDS, BY CLASSIFICATION: JULY 1954**

State	Total number of State education boards	Schools, Colleges, and Universities				Supplementary Programs		
		Total	Governing	Regulatory	Regulatory and governing	Total	Advisory	Administrative
1	2	3	4	5	6	7	8	9
Alabama	9	5	4	-	1	4	3	1
Arizona	3	3	2	1	-	-	-	-
Arkansas	12	11	10	1	-	1	-	1
California	16	3	2	-	1	13	10	3
Colorado	8	7	5	2	-	1	-	1
Connecticut	5	3	2	-	1	2	-	2
Delaware	3	3	2	1	-	-	-	-
Florida	4	2	1	1	-	2	2	-
Georgia	6	2	1	-	1	4	-	4
Idaho	1	1	-	-	1	-	-	-
Illinois	6	4	3	1	-	2	-	2
Indiana	7	4	3	1	-	3	1	2
Iowa	2	2	1	1	-	-	-	-
Kansas	7	2	1	1	-	5	4	1
Kentucky	10	9	7	1	1	1	-	1
Louisiana	3	2	1	-	1	1	1	-
Maine	4	3	2	-	1	1	-	1
Maryland	5	5	4	-	1	-	-	-
Massachusetts	9	7	5	1	1	2	-	2
Michigan	8	6	5	1	-	2	1	1
Minnesota	4	3	2	1	-	1	1	-
Mississippi	6	4	2	2	-	2	-	2
Missouri	11	8	7	-	1	3	2	1
Montana	9	1	-	-	1	8	-	8
Nebraska	4	3	2	-	1	1	-	1
Nevada	5	3	1	2	-	2	1	1
New Hampshire	3	2	1	-	1	1	1	-
New Jersey	6	5	4	-	1	1	-	1
New Mexico	12	12	10	2	-	-	-	-
New York	28	3	1	-	2	25	2	23
North Carolina	15	14	13	1	-	1	1	-
North Dakota	5	1	-	-	1	4	-	4
Ohio	15	8*	6	1	-	7	1	6
Oklahoma	10	8	6	1	1	2	-	2
Oregon	4	2	1	-	1	2	-	2
Pennsylvania	22	19	18	1	-	3	2	1
Rhode Island	3	2	1	-	1	1	1	-
South Carolina	13	9	8	-	1	4	2	2
South Dakota	2	2	1	1	-	-	-	-
Tennessee	6	2	1	-	1	4	1	3
Texas	12	10	9	-	1	2	2	-
Utah	7	3	2	-	1	4	3	1
Vermont	4	2	1	-	1	2	2	-
Virginia	7	7	6	-	1	-	-	-
Washington	6	6	5	1	-	-	-	-
West Virginia	4	2	1	-	1	2	-	2
Wisconsin	5	4	3	-	1	1	-	1
Wyoming	5	2	1	1	-	3	-	3
Total	361	231*	174	27	29	130	44	86

* Includes the State board of education which was provided for in Ohio by a constitutional amendment. The legislature has not yet implemented this amendment.

** This table from the study by Beach, Fred F. and Will, Robert F., The State and Education: The Structure and Control of Public Education at the State Level, Washington, U. S. Government Printing Office, 1955 (in press). (U. S. Department of Health, Education, and Welfare, Office of Education, Misc. No. 23.)

KEY TO STATE EDUCATION BOARD CLASSIFICATION

State Education Boards for Schools and Colleges — A *governing board* is responsible for the direct operation of one or more educational institutions. A *regulatory leadership board* heads a State system of educational institutions which are operated by governing boards. A *dual purpose board* provides both services. It operates certain institutions and regulates a system of institutions. ***State Education Boards for Supplementary Programs*** — An *Advisory board* has no administrative powers. The primary purpose of the advisory board is to study conditions, prepare reports and make recommendations. An *administrative board* for a supplementary program has definite management responsibilities, but it is not empowered to operate an educational institution nor to regulate a system of educational institutions. An administrative board is generally responsible for a statewide program of educational service; it may be assigned responsibility for various aspects of the work of an educational institution.

There were 44 state boards of education in 1951 as compared to 38 in 1945, new ones having been established in Iowa, Maine, Nebraska, Rhode Island, and South Dakota, while in Ohio the legislature is in process of setting one up pursuant to a new constitutional provision. No states that had boards in 1945 have since abolished them. Only four states — Illinois, Michigan, North Dakota, and Wisconsin — now lack them.

The number of elected state boards of education has increased threefold since 1945 when only Nevada and Louisiana provided for the popular election of members. By 1954 Colorado, Iowa, Nebraska, Texas, and Utah were also following this procedure and Washington had changed over from appointment of members by the governor to their election by conventions of school board directors. Proposals under consideration in a number of states point to an increase in the number of elected state boards in the future.

The *ex officio* board and *ex officio* board member is slowly disappearing. In 1955 only Arizona, Florida, and Mississippi were composed wholly or mostly of *ex officio* members. Today there are 36 *ex officio* members on state boards of education as compared to 59 in 1940.

There were 13 separate state boards for vocational education in 1945. There were only eight 10 years later: Colorado, Massachusetts, Nevada, Ohio, Illinois, Michigan, North Dakota, and Wisconsin. The last-named four do not have a state board of education. The trend is toward a single board for determining educational policy for the common school system including vocational education.

Only eight state boards of education were empowered to appoint the chief state school officer in 1945. By 1954, 18 states were in this group, despite the fact that a majority of those effecting the change had to amend their constitutions to do it. During this 10-year period the total number of chief state school officers elected by the people decreased from 33 to 26, while those appointed by the governor dropped from 7 to 4.

Patterns at the State Level

Not only is the whole structure of public education changing at the state level, according to information supplied by Dr. Fred Beach, but it is changing very rapidly. In recognition of the fact that the existing structure is becoming less adequate to bear the increasingly heavy loads many states in the last year were conducting legislative inquiries or state surveys aimed at streamlining state education organization.

While the establishment of unified state systems for locally operated common schools in the nineteenth century was not accompanied by a parallel movement toward the development of state systems for educational institutions operated at the state level, the study shows: "The situation changed with the rapid increase in the number of state educational institutions and the multiplication of state services in the twentieth century. State legislatures were no longer able to devote the time and attention required to supervise directly the activity of a number of state educational institutions. The same reasons which had earlier prompted state legislatures to place locally operated schools within a common school system, now called for the placement of *all* educational institutions at the state level within a system."

This has given impetus to establishing a state regulatory leadership board for higher education which heads the state system of colleges and universities, each operated by its own governing board, and bears a similar relationship to state colleges and universities to that the state board of education has to local school districts. The Oklahoma State Regents for Higher Education is a good example of a regulatory leadership board for a system of state educational institutions.

In other words the current trend is toward having two major state education agencies with co-ordinate responsibility: (1) a state board of education for the common school system, and (2) a state board for public higher education.

"This may," the report stresses, "be an intermediate stage in the further development of the state structure for education." It foresees that "as state educational institutions come to be headed by regulatory leadership boards and as state programs increase in scope and complexity, legislatures may find it desirable to establish a single educational authority," discusses some of the practical problems of co-ordinating the total state program of education when there is more than one board.

Classification of Board Functions

The Beach study classifies state boards of education according to the major functions they perform and delineates the differences between *state education boards for* (1) *schools and colleges* which are concerned with the government of one or more institutions and (2) *state education boards for supplementary programs* which do not operate or regulate educational institutions, but which administer or advise on certain state education programs, for example, a school building authority, an advisory board for a school for the deaf, or a state textbook board.

Three major types fall under the first category: (1) A *governing board* responsible for the direct operation of one or more educational institutions; (2) a *regulatory leadership board* which heads a state system of educational institutions which are operated by governing boards; and (3) a *dual purpose board* which both operates certain institutions and regulates a system of institutions.

Under the *state education boards for supplementary programs* category comes: (1) An *advisory board* without administrative powers whose primary duty is to study conditions, prepare reports, and make recommendations, and (2) an *administrative board* which is generally responsible for a state-wide program of educational service or may be assigned responsibility for various aspects of the work of an educational institution but is not empowered to operate or regulate it.

The survey identifies 230 state education boards for schools and colleges as of July, 1954. These had an over-all membership of 2326 persons, or a medium of 9.4 members which is in accord with the 7-to-12 member standard recommended by the Council of Chief State School Officers. Of these boards, 212 have overlapping terms for their members to assure continuity.

There were 27 regulatory leadership boards in the 48 states as of this date, including 17 for common school systems, 6 for vocational education only, 3 for state educational institutions, and 1 for junior colleges. There then were 29 state education boards with dual assignments requiring at the same time regulatory board responsibilities for certain institutions and governing board responsibilities for other schools and colleges. Of the 130 state education boards for supplementary programs functioning in July, 1954, 44 were advisory and 86 were administrative.

Some Additional Trends

The State and Education points up the role of legislatures in creating new institutions designed specifically to fit needs not adequately provided for under the existing structure. Describing the public junior or community college as a manifestation of this activity, it comments: "It provides experiences comparable to regular college offerings, for example the university parallel curricula; it provides experiences similar to elementary and secondary school offerings, for example vocational and adult courses; and it provides experiences not generally available in senior colleges or secondary schools, for example two-year terminal courses."

The data conclusively shows that the decision of state legislatures in the vast majority of cases has been to make newly established junior and community colleges an upward extension of the common school system operated by local boards of education. Of the 252 such colleges created by law that the study identifies only 7 were administered by state governing boards.

State residential schools for the deaf and blind, earlier considered custodial institutions and therefore under state welfare and health agencies in the structure of government, are increasingly being accepted as educational institutions and are gradually being placed in the common school system under state boards of education. In the 25 years just past the number under their jurisdiction rose from 14 to 28 at a time when those governed by noneducational state agencies declined from 28 to 17.

Most of the 75 state residential schools for the deaf and blind now in existence in 42 states were established during the nineteenth century. Only one has been set up since 1930. In 1954 many state departments of education had a larger number of specialists for the education of exceptional children and youth than they had total staff in 1900. Forty-three departments had at least one or more persons with state-wide responsibility for exceptional children.

State teachers college as separate state institutions are no longer in operation in 21 of the 48 states. They are disappearing in the nation. Only 105 of them remain according to the Beach study which lists 76 teacher education institutions in 22 states that have been redesignated as state colleges, colleges of education, or universities by authority of state legislatures during 1935–54.

Its findings that "colleges and universities which a hundred years before rarely provided any special education for teachers now train a major portion of the teachers for America's public schools" bear out the

(Concluded on page 63)

THE SCHOOL BOARD AS EDUCATIONAL LEADER

LAWRENCE O. LOBDELL

Principal, Clearstream Avenue School
Union Free School District 30
Valley Stream, N. Y.

A school board's time is often taken up with fiscal matters, with building construction, and with other items absolutely necessary to the operation of a school district. Because of this unavoidable preoccupation with such items, the board may seem to be remote from those who are the ultimate beneficiaries of their activities — the children. Looked at a little more closely, however, the alert and active board is seen to be a true leader in the educational field.

This is not to say that the board exercises leadership by giving arbitrary orders to the school administration regarding the many activities which, as a lay group, it cannot be equipped to direct. Indeed, leadership in mid-twentieth century has very little to do with the giving of arbitrary orders at all, but operates by encouragement and sharing and showing the way in accordance with accepted democratic procedures. And especially in the schools, where the teaching of American democracy is of primary importance, democracy in action from the school board all the way to the pupil in the classroom is indispensable.

Perhaps parenthetically, the writer wishes to emphasize that in using the word *democracy*, and the term *democracy in action*, he is not advocating a laissez-faire type of atmosphere. A school board which does not perform its designated functions, an administration which does not administer, a teaching staff which does not teach — all these add up not to democracy but to disorder. Democracy in action in a school system is not incompatible with order and with rules of operation; democracy simply means that order and rules are democratically arrived at. It is the function of leadership to help the group recognize and fulfill its needs, with regard to order, or rules, or anything else.

True Leadership

True leadership by the school board can be exercised in many ways. As examples, a few instances of actions taken and attitudes shown by the board of education of Union Free School District 30, Valley Stream, N. Y., are cited here.

In the years immediately following World War II, the exodus of families from the Greater New York area to the suburbs became tremendous. Valley Stream, whose western boundary is identical with part of the eastern boundary of New York City, was among the first of the suburban areas to feel in its schools the effects of the migration. Crowding in the one building of District 30 began, and in 1948 the board was faced with the necessity of new construction.

At that time the postwar boom in school building had not yet begun. Prewar school buildings, especially in the East, offered little in the way of innovation, of adaptation to the contemporary instructional techniques, or of architectural variety. Nevertheless, the board instructed an architect to design a radically (for those times) new type of school plant, the main features of which were to be its functionality and its economy. The resultant structure, the Shaw Avenue School, was one of the first large one-story school buildings in the East. Functional and economical indeed, it is also attractive architecturally. School authorities from many states and from foreign countries have inspected it before embarking upon building programs of their own. Thus did the board lead the way, not only in bringing better educa-

BOARD OF EDUCATION, UNION FREE SCHOOL DISTRICT 30, VALLEY STREAM, N. Y.
A school board which fulfills its role as education leaders. Standing: Sherwood Quick, Albert Taddiken, Joseph Huelster, Jr.; Harold Herman. Seated: Robert H. Bell; Roy H. Shelton; William Allen; Albert L. Anderson; Jack Tartikoff

The Shaw Avenue School, District 30, Valley Stream, one of the first large, one-story schools in the east

tional facilities to the pupils of the district, but also in pioneering a new style of school plant which has within a few short years become commonplace. Countless pupils and taxpayers over a wide area have benefited from this educational leadership.

Additional Classrooms

The influx of new people continued. Within a few years it became obvious that additional classrooms would have to be provided. In view of the tax increase caused by the bond issue for the construction so recently completed, it was imperative to investigate all possible means of economy, and to adopt only those compatible with the maintenance of the established educational standards of the district. And so, with the approval of the State Education Department, the new facilities (a new building and an addition to the one completed in 1950) became one of the first in the state to be constructed with 9-foot ceilings instead of the traditional 11-foot ceilings previously required by law. Many school boards in this area and elsewhere have followed the lead taken by this board; and hundreds of thousands of dollars in school construction have been saved by the elimination of unnecessary but previously required cubage.

It was correctly anticipated by the architect's engineers that nine-foot ceilings would bring about less diffusion of artificial lighting, and that therefore three banks of fluorescent lights, instead of the usual two, would be necessary. Little or no data was available from experience that could be applied to this situation; accordingly, the board asked the engineers to conduct experiments and tests to discover the best kind of lighting. The engineers invited a number of manufacturers to design and install fixtures on an experimental basis; six accepted the invitation, and the first six rooms completed were assigned to these manufacturers, one room to each. With the fixtures installed (incidentally, they were sold to the district at cost), exhaustive tests were made. All were found to be satisfactory and were retained; the best of six was ordered installed in the remaining rooms. The results of this lighting experiment and the final choice have been written up by the engineers and made available to engineers and architects. The board's forward vision benefited not only the local children but those in communities scattered far and wide.

Health Services

Innovation in building construction is only one area in which a school board can exercise the function of educational leadership. Another one is health. The furnishing of physical examinations by a school doctor, of teeth examinations by a school dentist, of vision and hearing tests by a school nurse — these services are becoming more and more firmly established in the schools. But a school board which seeks ever to improve the welfare of the children can seize additional opportunities as they arise.

About five years ago, when the value of the fluoride treatment of children's teeth was established, this board was among the first to introduce this treatment for all children. It did not undertake to do so without investigation, of course; all of the pros and cons were fully examined before a decision was made. Since that time, however, all children in the district have received fluoride treatment. Not every child is treated every year, but each receives fluoride treatment every three years. The practice of fluoridation of the teeth of children in school is now recommended by the New York State Education Department.

The expression "from head to toe" can be applied in many ways. Having established more than ordinary tooth care, the board then considered the offer of three local podiatrists to give free foot examinations to children in the district. The board first consulted the senior school physician. After investigating the training of these men, he approved the addition of a yearly foot examination. District 30 thus became the first in New York State to offer this service to its pupils. Since that time, two other districts have begun similar programs. The State Education Department is watching the results.

In other areas, too, this board has shown a realization of its responsibility for leadership. Recognizing that one characteristic of a good school system is the proportion of its beginning teachers who become outstanding teachers, the board has encouraged the administration to spare no effort in working with the teachers who come here each year. The publication of materials for the teachers' ready reference, the provision of consultants and special teachers in the special fields, the development of a definite orientation program for new teachers — these features could not come about in a school system where the board was apathetic toward the maintenance of a good educational program. The constant evaluation of the curriculum, the co-operative work on curriculum modification, the application of our basic yardstick (What can we do to give the children of this district the best possible education?) — these could not exist without the provision by the board of an atmosphere conducive to this type of program. By an attitude, and by an atmosphere, a school board can function as an educational leader.

Student Teachers

Closely allied to providing for the professional growth of teachers in service is providing preservice experiences for those in college who are preparing to teach. A school board which recognizes its responsibilities as existing not only within the boundaries of its district but beyond them as well, as extending to education in general, will provide for the inclusion of student teachers in its program. In doing so, this board has again served both local and nonlocal education well; it has provided itself with a very important source of new teachers, the most promising of those who have had their student teaching experience in this school system; and, in the case of those not hired by this board, it has cooperated in the training of new teachers in general.

There are almost numberless ways in which a school board can assume and maintain a position of leadership in education; the instances cited here are but a few examples. School board members imbued with a spirit of service to their com-

(Concluded on page 63)

17; eye examination, 18; waiting room, 11; 1.05 to 0.13 square feet, with a median

Space Allocation in Washington High Schools

ERNEST HAYES, Ed.D.

Professor, Department of Education
University of Portland
Portland, Ore.

The first two parts of the article, which discussed the survey of high schools built in the state of Washington since 1947, showed that the space allocation to instruction had extremely wide variation.

III

This third part deals with the second factor surveyed, namely, space allocation to *administration*. It included spaces for: (1) the administrative suite; (2) teachers' rooms; (3) health suite; (4) kitchens; (5) general toilets; (6) janitor's storage; (7) general storage; (8) bookrooms; (9) student council suite; and (10) janitor's suite. Kitchens were discussed with cafeterias in the first article. However, kitchen areas are included in discussing the over-all totals of space for administration.

In the general analysis of the 23 Washington high school buildings, the areas per pupil for administration, as defined above, ranged from 21.38 to 6.57 square feet, with a median of 10.94. Further, there was no significant correlation between space for administration and student capacity of the buildings. Schools of almost the same student capacity varied as much as five square feet per pupil. It seemed logical to assume that there would be a basic amount of space needed for a 300-pupil high school. Then, as the school increased in capacity, a decreasing increment would be needed, resulting in a negative correlation between space allocation and student capacity. As this was not the case, it must be assumed the great variation was a result of local planning, finances available and, in some cases, consideration for future extension.

Reviews of the literature on space allocation to administration showed that very little actual research has been done on the space needs included here under administration. What is usually offered as a guide is commonly stated as "adequate space should be allowed." Thus, local planning committees have labored under the handicap of not having too much information available to them. Since the range was found to be about 15 square feet per pupil, a great variation in opinion apparently existed as to what is adequate. Thus, an attempt was made to set up tentative minimum standards for all spaces under administration for guidance of planning committees.

Administrative Suites

Space allocation to administrative suites varied from 6.25 to 1.55 square feet per pupil. The correlation between areas and student capacity was not significant, indicating that the space allocation tended to be independent of the student capacity of the schools.

Table VI gives a summary of space allocation to the composite spaces of the administrative suites, together with recommended minimum standards. Ranges in all cases were great, the largest space being twice or more than that of the smallest. Storage rooms and workrooms showed the greatest variation. Further, in only one case, general waiting rooms, was there a significant correlation between space allowed and the student capacity of the schools. Even this case had a highly random allocation.

Perhaps one of the most striking factors in administrative suites was the omissions. For instance, three of the larger schools had no counseling rooms and seven had no office for a vice-principal. Eight of the eleven counseling suites had no waiting rooms. Three larger schools had no storage space. One larger school lacked a lavatory in the suite. Of course many of the omissions were found in the three smallest schools.

In view of this rather controversial picture, a basic administrative suite was set up for a school of 300 students. Some of the spaces in this suite would be increased as the student capacity of the school increased. Hence, the area per pupil would tend to decline steadily as the student capacity increased. Spaces for schools smaller than 300 students may be adjusted, but very little. The area per pupil of this basic administrative suite is 5.20 square feet, thus giving a basic area of about 5 square feet per pupil for the administrative suite as a guide for planning.

The areas for the basic administrative suite were as follows:

TABLE VI. Space Allocation to Administrative Suites and Recommended Minimums in Square Feet

Name of Space	*No.*	*Maximum*	*Minimum*	*Median*	*Recommended Minimum*	*No. Missing*
Principal's Office	23	212	106	167	150	0
Vice-Principal's Office	8	170	84	133	150	7
General Office	21	605	163	327	250	2
Waiting Room	21	422	98	205	175	2
Conference Room	12	805	119	248	325	11
Attendance Office	2	160	121			
P.A. System	2	126	76			
Information	1	32				
Counselor's Office[a]	26	202	69	113	150	11 (schools)
Counselee-Waiting[b]	4	225	68		150	8 (suites)
Vault	20	166	45	80	50	3
Storage Room	18	695	10	81	100	5
Workroom	15	651	86	171	150	8
Toilets	17	101	15	29	60[c]	6
Passage Space	18	353	0	165		

[a] One counselor's office for every 300–500 students.
[b] Waiting room, 150 square feet for one office and 50 square feet additional for each additional office.
[c] Two toilets of 30 square feet each.

Name of Area	*Recommended Area in Sq. Ft.*
Principal's Office	150
General Office	250
General Waiting Room	175
Conference Room	325
Counselor's Office	150
Waiting Room (Counseling)	150
Vault	50
Storage	100
Workroom	150
Toilets (2)	60
Total	1560

Teachers' Rooms

Space allocated to teachers' rooms gave a surprising picture. It could hardly be said that the teachers were pampered with excessive comfort. Only the largest school had what could be called an adequate suite of rooms for men and women, general lounge, toilets, and storage. Some of the larger schools allowed less space than some of the smallest.

Omissions were again one of the outstanding factors. Ten of the schools had separate rooms for men and women, seven had only a general lounge, and three had rooms only for women. Two of the smallest schools had no space for teachers. Twelve schools had two toilets for teachers, seven had only one toilet, and four had none. Thirteen had no storage space. Only two had kitchenettes.

A new tool was used to measure space allocation to teachers' rooms, namely "area per teacher station." This area varied from 57.1 to 0 square feet, with a median of 18.7. The largest school allowed 33.3 square feet per teacher station.

Since it is considered that 30 square feet per pupil be allowed in the general classroom, a similar standard seems to meet the need for teachers' rooms. Thus, a standard of 30 square feet per teacher station was set. Only four of the 23 high schools surveyed met this standard. For a school of 300 students this standard requires 390 square feet, which is reasonable. Naturally, the standard assumes space is to be allowed for both men and women, with areas for workroom, storage, toilets, and kitchenette.

Health Suites

Space allocation to health suites had surprisingly large variations. One larger and the three smallest schools had no health facilities. The area per pupil for the 19 suites ranged from 2.33 to 0.23 square feet, with a tendency for the area to decrease as the student capacity increased. The correlation between areas per pupil and student capacity was —.53, which indicated there was considerable randomness of allocation.

Omissions were again quite notable. In the 19 health suites, the following spaces were omitted, given in number of cases: examination room, two; boys' restroom, eight; girls' restroom, five; dressing room, 17; eye examination, 18; waiting room, 11; toilets, two; and storage, 10.

Similar to the administrative suite, it was considered that a basic health suite could be set up for a high school of 300 students. The areas would increase in decreasing increments as the student capacity of the schools increased. The area per pupil for the basic health suite is 3 square feet, which can be taken as a minimum standard for planning.

The recommended areas were as follows:

Name of Space	*Recommended Area in Sq. Ft.*
Nurse and Doctor's Room	200
Dental Room	100
Boys' Rest Room	100
Girls' Rest Room	150
Dressing Rooms (2)	180
Waiting Room	100
Toilets (2)	60
Storage	20
Total	910

General Toilets

Space for general toilets included spaces other than those toilets that are part of some department, suite, or large instructional area. The space allocated for boys and girls was about equal, with the exception of one building where a section for boys was omitted because an alternate was left out in the final contract. The areas per pupil ranged from 3.56 to 1.22 square feet, with a median of 2.21. There was some indication that the area per pupil decreased as the student capacity increased. However, the allocation was quite random. For instance, 3.46 square feet per pupil were allowed in the sixth largest school. Some of the higher allowances could have been based on future expansions.

A minimum standard of 2 square feet per pupil was recommended for general toilets.

Janitor's Storage

Only one of the 23 high school buildings neglected to allow some space for janitor's storage, namely, one smaller school. The area per pupil ranged from 1.16 to 0.07 square feet, with a median of 0.29. Thus, a tentative minimum standard for janitor's storage was set at 0.30 square feet per pupil.

General Storage

Nineteen of the 23 buildings allowed some general storage space, located off the main hallways or corridors. The areas per pupil ranged from 2.74 to 0.16 square feet, with a median of 0.53. As such space seems desirable, a minimum standard was tentatively set at 0.50 square feet per pupil.

Bookrooms

Eight of the larger schools had special bookrooms for the storage of textbooks. The area per pupil allocated ranged from 1.05 to 0.13 square feet, with a median of 0.47. In the cases where such a room is desirable, a recommended minimum standard was set at 0.50 square feet per pupil.

Student Council Suite

Only seven of the 13 larger schools had space for student council suites. This indicated that space for student government tended to be neglected. Space allocation ranged from 1.17 to 0.10 square feet per pupil. It was recommended that a minimum of 0.50 square feet per pupil be allowed for student council facilities.

Janitor's Suites

The janitor's suite was perhaps the most neglected subdivision in the schools surveyed. Only one school had what may be called a satisfactory suite for the janitor. One other had a toilet and shower in the boiler room. It was recommended that a minimum area of 100 square feet be allowed for a janitor's suite, composed of an office, shower, and toilet. This area would increase as the size of the janitorial staff increased.

Staff Offices

The survey showed that staff offices for the academic departments were definitely neglected. Only a total of seven offices — five in science and two in home economics — were found for the academic departments of all the schools surveyed. The shops, music suites, library, and gymnasiums fared somewhat better. Here again the space allocation varied greatly, the largest being from three to ten times the smallest. Whereas the importance of the teacher as a counselor is becoming recognized more and more, added consideration needs to be given to allow space to permit this work to be done efficiently.

Standards for space allocation to unit offices were set as follows:

1. Academic and Kitchen, 80 square feet
2. Library, 120 square feet
3. Shops and Gymnasium, 150 square feet

Conclusion

The analysis of space allocation to administration showed such extremes that no trends were in evidence. As was pointed out, certain units were at times somewhat inadequate or omitted. The apparent need seems to be that the planning committees should consider space for administration in terms of minimums required, such as, the basic administrative suite, the basic health suite, teachers' rooms, janitor's suite, student council suite, and general storage. None of these belong into alternates that face the danger of being left out in the final contract. Further, the comfort of the personnel, faculty, office and custodial, needs more consideration than is given them in many cases. Preliminary plans need a thorough study to see that they meet the basic needs.

Certain techniques can be used by the smart administrator to help teachers and students adjust to the uncertainties surrounding the new school situation

Orienting for the New School

HOWARD H. MOSHER

Principal, Guilderland Central High School
Guilderland Center, N. Y.

Someone has said that one of the inevitable results of change is the uncertainty of the nature and character of the period which follows change. Today's school administrator, however, faced with the prospect of moving into a new high school, will use a number of proved techniques to expedite the move and to eliminate as many of the uncertainties of the future as possible.

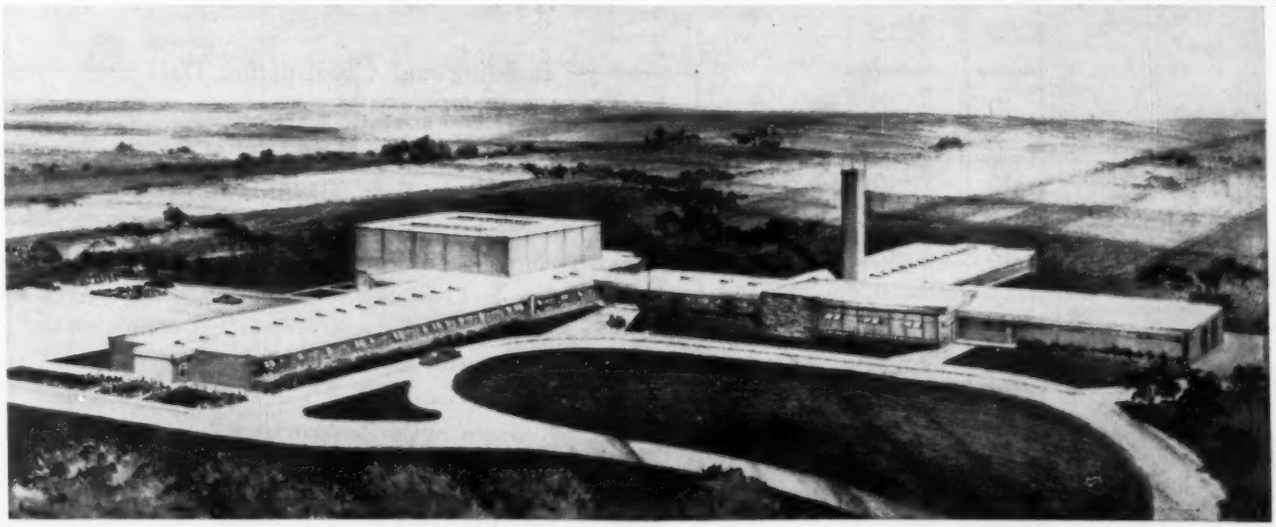
With increasing enrollments and expanding curriculums there has been a tremendous increase in building programs throughout the nation. Each program brings problems peculiar to the local school district. The techniques discussed here could, with certain modifications, be adapted to any new school situation, rural or urban; elementary, junior high, or senior high; new, regular, or combination pupil enrollment.

Teacher Orientation

Assuming as a basic premise that the new building has been constructed to be compatible with a previously established curriculum, one of the first important tasks of the administrator is orienting the faculty and the pupils. (It must be assumed, also, that there has been general agreement and co-operation among parents, pupils, and faculty in the preparation of the physical plant and the curriculum.)

Almost without exception, the orientation of the faculty for a new high school will fall into two areas: that directed toward the teachers currently employed, and that directed toward the new teachers who will supplement the present staff in order to meet the demand of increased enrollments and greater scope of program. This latter group will require an orientation peculiar to its own needs since it will be composed, in a two-to-one ratio, of experienced and inexperienced teachers.

A magazine article describing the total school should be written for one of the state teachers publications. This article, together with the distribution of a brochure directed to prospective teachers, will suffice to "advertise" the school physical plant, and the academic and the cocurricular program. The character of these devices will, of course, be such that superior teachers will become interested in the possibility of teaching in this particular school. These two media, together with word-of-mouth promotion on the part of the present faculty, will result, typically, in large numbers of applications. Selection and orientation then begin at one and the same time.



Guilderland Central High School, Guilderland Center, New York — Perkins and Will, Architects-Engineers, Chicago, Illinois

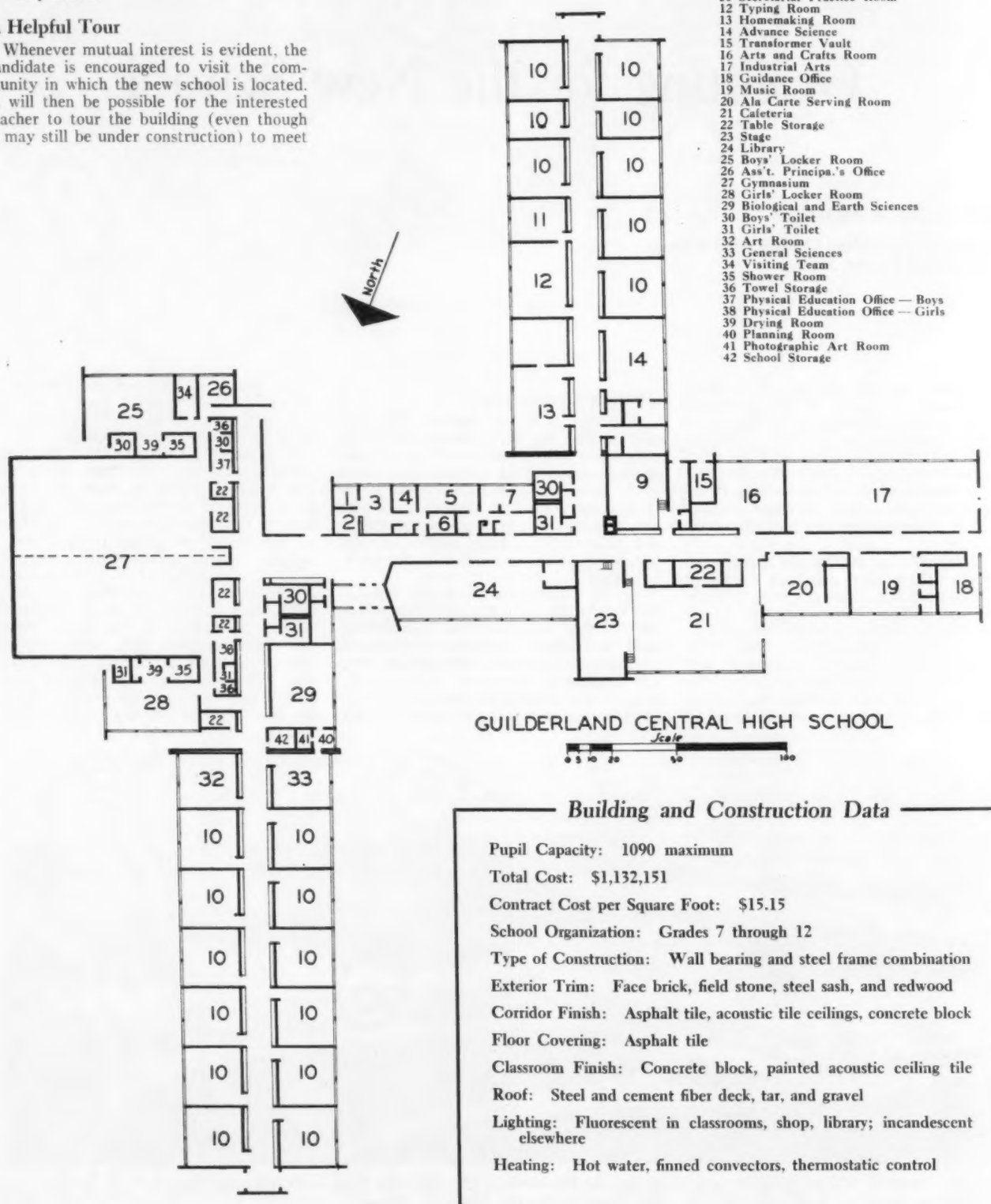
Administrators will outline at the first interviews the school program and the character of the community in which the high school is located. The greatest emphasis will be placed upon the nature of the particular position in which the candidate is interested and upon the qualifications of the candidate in terms of the requirements of the position.

A Helpful Tour

Whenever mutual interest is evident, the candidate is encouraged to visit the community in which the new school is located. It will then be possible for the interested teacher to tour the building (even though it may still be under construction) to meet

Legend

1 Principal's Office
2 Waiting Room
3 General Office
4 Board Office
5 Supervising Principal's Secretary's Office
6 Supervising Principal's Office
7 Health Room
8 Reception Room
9 Boiler Room
10 Classrooms
11 Secretarial Practice Room
12 Typing Room
13 Homemaking Room
14 Advance Science
15 Transformer Vault
16 Arts and Crafts Room
17 Industrial Arts
18 Guidance Office
19 Music Room
20 Ala Carte Serving Room
21 Cafeteria
22 Table Storage
23 Stage
24 Library
25 Boys' Locker Room
26 Ass't. Princips.'s Office
27 Gymnasium
28 Girls' Locker Room
29 Biological and Earth Sciences
30 Boys' Toilet
31 Girls' Toilet
32 Art Room
33 General Sciences
34 Visiting Team
35 Shower Room
36 Towel Storage
37 Physical Education Office — Boys
38 Physical Education Office — Girls
39 Drying Room
40 Planning Room
41 Photographic Art Room
42 School Storage



Building and Construction Data

Pupil Capacity: 1090 maximum

Total Cost: $1,132,151

Contract Cost per Square Foot: $15.15

School Organization: Grades 7 through 12

Type of Construction: Wall bearing and steel frame combination

Exterior Trim: Face brick, field stone, steel sash, and redwood

Corridor Finish: Asphalt tile, acoustic tile ceilings, concrete block

Floor Covering: Asphalt tile

Classroom Finish: Concrete block, painted acoustic ceiling tile

Roof: Steel and cement fiber deck, tar, and gravel

Lighting: Fluorescent in classrooms, shop, library; incandescent elsewhere

Heating: Hot water, finned convectors, thermostatic control

A Systematic, Bimonthly Plan for —

members of the present staff and to get a firsthand view of the community. Experienced, superior teachers will request such an opportunity, while inexperienced teachers will take advantage of it also, since it is necessary in terms of their being completely orientated. The administrator will make his selection from among the most promising candidates only after having observed them in their own classroom situations.

Once this final selection has been made, the intensive orientation will begin. Each member of the present staff will act as sponsor for one or two of the new teachers. These sponsors will begin corresponding with the new teachers immediately upon appointment. The nature of the correspondence will, of course, be determined by the personalities involved, but will inevitably result in further orientation.

New teachers are interested in such things as housing, social activities, shopping potentials, biographical items pertaining to members of the staff, and a host of others. This particular element of the total orientation program will contribute as much, perhaps, toward making teachers feel secure in a "belonging" sense as any other single phase of the program. Current issues of the local newspaper and of the school newspaper, school yearbook, and school magazine will be sent to new teachers. A thumbnail biographical sketch of all members of the faculty will be made available. A copy of the new faculty handbook will also be of inestimable value to the new teacher.

Through participation in committees, study groups, and workshops, the present members of the faculty will have become familiar with the new physical plant, the proposed program, the expanded curriculum, and the general nature and character of the entire school situation. As a result, they will be in an excellent position to orient the new faculty with respect to many of the mechanics in the program of the new school.

The Final Phase

The final phase of the orientation program, before the preschool meetings in the fall, will be a Saturday conference in early spring. The purpose of this meeting will be to "get acquainted"; to discuss the class schedules, the activity program, the clubs, and the service programs; to tour the nearly-completed building; and to meet with representatives of the textbook publishers preparatory to making decisions concerning the selection of basal and supplemental books.

Today's school administrator will keep in mind that teachers will make plans during the summer in terms of the degree to which they are familiar with the requirements and the details of their teaching and cocurricular responsibilities. This spring conference will acquaint teachers with their homeroom and classroom numbers and personnel, their schedule of classes, and their cocurricular activities. The tour of the new building should enable teachers to identify their rooms. The simple device of attaching cards to doors, indicating room number, teacher's name, and subject will suffice for this purpose. It is needless to point out that these things are of immediate concern to teachers once they have accepted a new position.

Committee meetings will follow examination of textbooks and reference books. Class sizes will be discussed and textbook requisitions completed in the light of the age, number, and quality of the books already on hand, as compared with the number of pupils to be enrolled in each of the classes in the new school. Requisitions for other instructional supplies, also, will be discussed and completed in these committee meetings.

Teachers will leave this spring conference with a feeling of security in terms of the coming school year and will plan much more intelligently and happily during their summer holidays. A smoother opening of the new school and a better beginning for the year ahead will be the result of a carefully planned orientation program.

Pupil Orientation

The orientation of the pupils is also of tremendous importance if the school administrator is to feel secure in the future, following the change resulting from moving into a new school. There is a direct parallel between the two-phase orientation of the faculty and the orientation of the pupils. There will be one type of approach used with the pupils in the present school and a second, or somewhat different approach, directed toward the pupils who are attending other schools but who will be enrolled in the new high school.

The school administrator will use, for the first group, a series of planned programs, creating in the pupils the enthusiasm, the understanding, and the knowledge prerequisite to their accepting the responsibility for establishing and for maintaining desirable behavior patterns in the new high school. This may be done through the student council, the home-room guidance period, and the school service clubs. It is a relatively simple task to bring about this leadership responsibility on the part of the pupils who are enrolled in the present school, at the same time preventing, through anticipation, any friction between the "old" and the "new" pupils. High school pupils, typically, will accept this challenge and will understand the necessity of their setting the proper example and of their making *all* pupils feel at home in the new school.

The pupils enrolled in the present school will be oriented before those attending outside schools. One of the final phases of general orientation will be a school bus trip to the new building and a complete tour with guides who have been carefully briefed. These guides will be members of the present junior class and will be used as key persons throughout the remainder of the program. The plan for the presently enrolled pupils will conclude with a scheduling conference in which the home-room teachers, the guidance teachers, the parents, and the pupils will participate.

The second phase of the orientation program, directed toward pupils who will attend the new high school but are currently enrolled in an outside school, will begin with sixth graders if the new school includes grades 7–12 and with ninth graders if it is to be a senior high school. The guidance director, together with a panel of juniors, will meet with each class of sixth graders, or ninth graders as the case may be. It is desirable to have the elementary teachers and the elementary principals in attendance at such a meeting in order that these pupils may feel secure in the situation.

The Academic Program

The guidance director will distribute to each pupil a typical seventh-grade academic program, explain it carefully, answer questions, and request each pupil to take it home in order that he may discuss it with his parents. The panel of four to six juniors will explain the entire cocurricular program, and will carefully detail such items as cafeteria procedure, lockers, school store, athletics, dramatics, and music. Each pupil will then be furnished with a copy of the pupil handbook, urged to take it home, to read it, and to discuss it with his parents. Again, the final phase of the orientation program for these pupils is a school bus trip to the new building. Here they are separated into small groups and are guided through the building, with the juniors acting in the capacity of leaders.

The procedure for other pupils attending outside schools will be the same with two exceptions. Eighth, ninth, and tenth graders are given an opportunity to discuss the program with teachers and guidance personnel and will have their class schedule completed before they leave to inspect their new school.

The second exception relates to juniors attending an outside school. These pupils will be among those seniors who will comprise the first graduating class. It is to this group (and also to those juniors in the present school), that the administrator looks for help in the organization and administration of the school. These "outside" pupils, too, deserve something special in the way of orientation if they are going to be expected, through a combination of unfortunate circumstances, to change schools at the end of their junior year. This situation is one, of course, which school administrators attempt to avoid. Pupils loathe to change school at any grade but particularly so at the senior high school level.

A program for these juniors, then, will include a tour of the new building with experienced, competent guides of their own age, followed by a verbal and a written explanation of the academic and the cocurricular program, and brought to a conclusion with a registration-scheduling situation, and a dinner dance. All juniors enrolled in the present school are naturally key persons in this final program; and their contributions to the success of it in terms of the new pupils' happiness and security will be of tremendous importance.

In Conclusion

Obviously, the techniques discussed here so briefly are but a few of the total number that a school administrator will use in attempting to eliminate some of the uncertainties and the hazards of the future in a new high school. The initiation of an early and a continual orientation program will greatly facilitate an efficient and economical new school opening.

A Systematic, Bimonthly Plan for —

Curriculum Reports to the Board

THEO J. NORBY
Superintendent of Schools
Inglewood Unified School District
Inglewood, Calif.

ALBERT GRANT
Co-ordinator of Curriculum
Inglewood Unified School District
Inglewood, Calif.

A systematic plan for informing the board of education on curriculum matters is being developed by the Inglewood Unified School District of Inglewood, Calif. Since the results to date have been quite successful, we are describing the plan here so that others may consider it for possible use in dealing with an important but knotty problem.

The plan was started in response to a request by board members that a part of each regular bimonthly meeting be devoted to hearing and discussing reports on some aspect of the instructional program. As a first step, we developed a tentative schedule of reports for an entire year and submitted it to the board for consideration. It was adopted essentially as proposed except that the sequence of reports was changed in a few instances.

The schedule, as approved by the board, provided for 24 different reports made during the 12-month period, July 1, 1954 through June 30, 1955. Approximately one third of the reports were on the curriculum of the elementary school grades. Another third were on the work of the high school and the remainder dealt with aspects of the curriculum which cut across all grades, such as after-school recreation. The following are some of the topics that illustrate the 24 reports:

a) How We Teach Reading
b) Arithmetic in the Elementary School
c) Teaching the Foreign Language Arts
d) Home Economics in the High School
e) Library Service in Our Schools
f) Our Program in After-School Recreation

The Procedure

A uniform procedure for preparing and presenting the reports has gradually been developed as follows:

1. As a first step, we enlist the help of one or two members of the staff to assist in making the report. These persons are chosen from among those who are most directly concerned with the subject to be reported. For example, in preparing the report on the teaching of high school English, we secured the help of the English Department Chairman in one of the high schools.

2. The second step consists in the preparation of a two or three page statement of basic facts regarding the topic to be presented. For example, the statement on teaching the foreign languages describes the goals, methods, and learning materials that characterize the work in this area. The statements are prepared in co-operation with the staff member, or members, who have been asked to assist. It is sent, along with the agenda for the next meeting, to the board members a few days in advance of the date of meeting for which it is scheduled.

3. The third step consists in the preparation of an exhibit of related materials such as textbooks, charts, courses of study, and examples of the students' work. This display, prepared by the person who will give the report, is set up in the board session room in advance of the meeting.

4. The fourth and final step is the oral presentation at meeting. This consists of a 5 to 10 minute introductory statement by the Co-ordinator of Curriculum and a 20 to 25 minute report by the person or persons who have been selected to assist in the presentation.

The oral presentation is generally followed by a discussion period during which board members and persons in the audience ask questions and make comments on the topic being discussed. A concluding statement is usually made by the Superintendent of Schools.

Shown discussing plans for a report on the music program are Superintendent Theo J. Norby (seated), curriculum co-ordinator Albert Grant (left), and music supervisor James R. Clemens.

Favorable Conclusions

Our evaluation of the plan to date suggests two favorable conclusions:

a) The members of the board of education have acquired a better understanding of the total curriculum and are becoming better acquainted with members of the staff who have leadership responsibilities.

b) The reports have been a means of developing better community understanding of the instructional program. Local newspapers have contributed to this end by providing good coverage for each of the meetings.

The plan will be continued next school year with minor modifications. We believe that it represents one solution to the perennial problem of insuring that curriculum will get appropriate attention at board meetings which, in so many communities, are devoted almost exclusively to problems of administration and personnel.

the barriers of formal reserve and develops camaraderie.

The second day of the preschool workshop is devoted to a general meeting of

to meet with them on December 6, 1954, to hear a discussion of the problems. The

Personnel Practices Helpful in Attracting and Retaining Good Teachers

CLYDE L. OGDEN, ED.D.

Superintendent, Sequoia Union High School District
Redwood City, Calif.

Meteoric population gains since the close of World War II have created in many of our states serious shortages of classroom facilities and teaching personnel. Competition among school districts to attract and hold good teachers is going at an accelerated pace. In the 1920's and 1930's it was not uncommon for one superintendent to interview a dozen applicants for a given teaching position. Today, it is not uncommon for a dozen superintendents to interview a single teacher in the hope of attracting the teacher to their district. Many school districts print brochures outlining the attractions of teaching service in their district. Out-of-the-way school districts have established highly attractive salary schedules to entice teachers to their schools. The law of supply and demand is in full operation. The supply of qualified teachers is relatively small and the demand for teaching services is growing greater with each year's crop of babies setting new all-time highs.

Good personnel practices which should have existed as a matter of course in any well-conducted school program are now a matter of necessity if a school district expects to hold its own in today's race to obtain and retain good teachers. Specifically, school districts must recognize the fact that teachers are human beings and proceed to develop, if they are not already working to do so, an effective program of recruitment, orientation, in-service training, and incentives that is based upon a recognition of teachers as human beings possessing normal desires for recognition and acceptance and having normal ambitions for security, social status, and advancement.

Orientation Results

What are the results of a good teacher orientation program? A good orientation program will help to make the new teacher feel at ease, respected for his professional ability, liked for himself as a person, friendly toward his colleagues, happy that he is a part of the school system and community with which he has cast his lot.

Why develop an orientation program for new teachers? New teachers need an opportunity to become acquainted with one another, their new community, their new assignments, their administrators, the philosophy of the school system they have joined, and the rules and regulations (policies) of the district.

New teachers are "strangers in a strange land." They need to be made to feel wanted, welcome, important, a part of the team of human beings working with, and for, other human beings. The chill of being mere cogs in a machine must be eliminated.

Two old sayings declare that "A good beginning is a task half done" and "As a twig is inclined, so grows the tree." If the orientation program is successful, the pattern for teacher growth, development, and service is clearly defined. The new teacher will know what is expected of him and how he can help obtain the basic objectives of the school program.

For the past seven years, a definite teacher orientation program has been an integral part of personnel practice in the Sequoia school district. While other factors such as salary schedule, location, climate, etc., are undoubtedly contributory, teacher turnover has been markedly reduced. At the time of writing, only two of a teaching force of 241 are expected to be leaving the district. Both of these are leaving because of family reasons.

A Listing of Ideas

Growing out of the past seven years' experience are these ideas which the writer is happy to share with fellow administrators:

Be careful and deliberate in selecting the new teacher. Look to the personality (appearance, mannerisms, voice, avocational interest, etc.) as well as professional training, educational philosophy, and teaching experience. How will the new teacher fit in with the existing staff? What strengths will he bring to the school system?

Give ample time to every candidate interviewed. Make the candidate feel the system is even more concerned with getting the right teacher than the candidate is in getting the position.

Let the candidate talk. Obtain his viewpoints, encourage him to express his attitudes, ideals, and concepts. Let him know yours. Try for a genuine "two-way" conversation.

Make it a policy to have your building principals and department heads "screen" candidates. They will respond to responsibility for selection and evaluation. The candidate will feel that his selection has been carefully made.

Follow up the selection of new teachers with a series of friendly letters during the summer months from the superintendent, building principals, and department heads. Show interest in the new teacher by offering assistance in obtaining teaching material, housing, etc. Give the new teacher his exact assignment as early as possible. If available, give him course outlines, the school calendar for the year, and a teacher's manual. Tell him where to file his teaching credentials and help him in mechanics of preparing tax withholding forms, loyalty oaths, etc.

Help the new teacher find a home. Renters are generally glad to find teacher tenants. Let the building secretaries keep a list of offerings.

Find out where the teacher wants to do his banking. Introduce him to the bank manager.

If the teacher needs a telephone, help him get one. The telephone companies generally give a teacher service priority.

Inquire as to what fraternal or service club organizations the teacher belongs and arrange for someone to take him to the next meeting and make him known.

If the new teacher and his wife have children of school age, help them meet the proper school official so that the children will be ready for school on opening day.

In planning a preschool workshop or institute, set one day aside solely for new teachers. Plan the day to be as informal as possible. Strive to make the day a pleasant "get acquainted" opportunity. These practices have proved themselves successful in the writer's district:

1. An informal, social type of letter is written to all new teachers. The letter outlines the plans for the three day preschool workshop and details specifically the "get acquainted" day for new teachers. The wife and/or husband of the new teacher is invited to share the day with the teacher.

2. An informal coffee hour begins the first day's workshop session. Each person is provided with an identification badge showing the school with which he will be identified and with his name printed in letters large enough to be easily read from a distance. A good "mixer device" is to provide each person with a slip of paper with some word, such as "Sequoia," "California," or "Welcome Friend" printed vertically along the left-hand margin. Opposite each letter place a line to receive a signature. At a signal, let everyone seek to find and obtain the signature of a person whose first or last name corresponds to a letter of the word printed on the paper. It is amazing how quickly this simple game melts

the barriers of formal reserve and develops camaraderie.

3. Following the coffee hour social, the group is seated and the superintendent welcomes the group to the district, introduces his administrative staff and outlines briefly a physical description of the district, educational philosophy, and objectives and major problems faced by the district. Emphasis is placed on the fact that the new teachers have been carefully screened and selected and represent the best qualified teachers the district could obtain.

4. At about 11:30 the meeting is adjourned and the group is taken by school bus to a dutch treat luncheon. In our district we are fortunate to have an inn with considerable historic interest. This enables us to follow the luncheon with an illustrated talk on the early history of the area so that the teachers can obtain a background of the area in which they are making their new home.

5. Following the luncheon—about 2:00 p.m. —the group is taken on a tour of the district in which major points of interest are seen. Short stops are made at the several high school plants for a quick overview of each.

6. The conducted tour comes to an end at the superintendent's home where refreshments are served in the garden and a final cementing of acquaintanceships may be made.

The second day of the preschool workshop is devoted to a general meeting of the faculties, both old and new, of all schools, in the morning and building meetings in the afternoon. A tea is generally given by the current teaching staff in each building in honor of the new teachers. This welcoming gesture follows the principal's meeting with his faculty.

The third day of the preschool workshop is devoted to individual building and departmental meetings. Custom has developed a get-together luncheon in which informality and fun are accented.

During the year a men's stag, bridge parties, family picnics, etc., are developed to further weld the new teacher into the faculty family.

Man is a social animal. In today's frenzied world of speed and mechanization, human values are too often overlooked. The practice of the Golden Rule is simple if only time and effort are allotted to it. One satisfied customer tells another; one satisfied teacher will tell others. The friendly approach can help the harried administrator locate and retain good teaching personnel.

How a Citizens Committee Served the Schools

R. S. MORGAN

Superintendent of Schools
Bishop, Tex.

The helpful influence of an alert and effective citizens group, interested in the welfare of its school system, has again been demonstrated in Bishop, Tex.

Bishop is located in the rapidly growing section of Texas known as the Gulf Coast area. The city was for many years in an agricultural area, with a static population. When a new school was needed, bonds were voted, a building was erected and sufficed until it was worn out or outmoded. A three-story building was erected in 1913, when the town was young, and it continued in use until 1945 when it seemed outmoded. In 1945, another building was erected, and the board of trustees felt that the housing situation was solved for another 30 years. Several factors entered the picture, however, and these factors brought about the need for additional facilities.

Industrial Development

In 1946, a large chemical plant was moved into the community. This plant brought many new families into the school district. The discovery of oil, the impact of the large birth rate in the early years of World War II, and the erection of a Naval Base nearby, all brought a rapid growth in the school population.

The year 1946 brought about a new bond issue and a new building program. The board had begun to realize that it must face a long range building program, and thus conceived the idea of a master plan. The first unit of that plan was erected in 1948, and the second unit in 1953. Each of these units required the passage of an additional bond issue. At the completion of the 1953 building program, it was felt that the needs were met for another five years, but when schools were opened in the fall of 1954, all classrooms were put to use, and there was no space available for the increase expected in the fall of 1955.

Although there is a great deal of industrial development in the school district, the agricultural economy is still a strong factor. Complete crop failures in 1951 and 1953, caused by prolonged droughts, tightened the purse strings of the rural taxpayers.

As it became evident that an increase in local revenue was necessary for additional classrooms, the board of education invited a cross section of the community to meet with them on December 6, 1954, to hear a discussion of the problems. The president of the board presided at the meeting and outlined the problems facing the schools. He stated that unless additional local revenue were provided, and additional classrooms were constructed, the program of the local school district would be seriously curtailed. He mentioned that additional course offerings in the high school also were needed. After a prolonged discussion, the group recommended that a Citizens Committee be appointed to study these problems, and make recommendations to the board in a public meeting.

Committee Appointed

This step was agreed upon unanimously by the group assembled, and the committee was appointed, and divided into three subcommittees. These were to study building needs, finances, and curriculum. These committees assumed their assignments willingly, and had several meetings. The problems were studied in great detail, and a lot of constructive thinking was done. These committees talked with the business manager, with the high school principal and with the various members of the school board.

When the study was completed, and the recommendations were ready, another public meeting was called to discuss the proposals. The recommendations were presented by the chairman of the various committees, and discussion followed. Briefly, the recommendations to the board were: (1) to call an election at the earliest possible date to allow the voters to vote on a proposed bond issue to provide sufficient capital to take care of the building needs of the foreseeable future; (2) at the same time, allow the voters to vote on the proposition of increasing the local tax rate by 20 per cent; (3) increase the offerings of the high school to include modern languages, additional mathematics, and science courses; (4) pay adequate salaries to the teaching staff so that qualified instructors might be secured and retained.

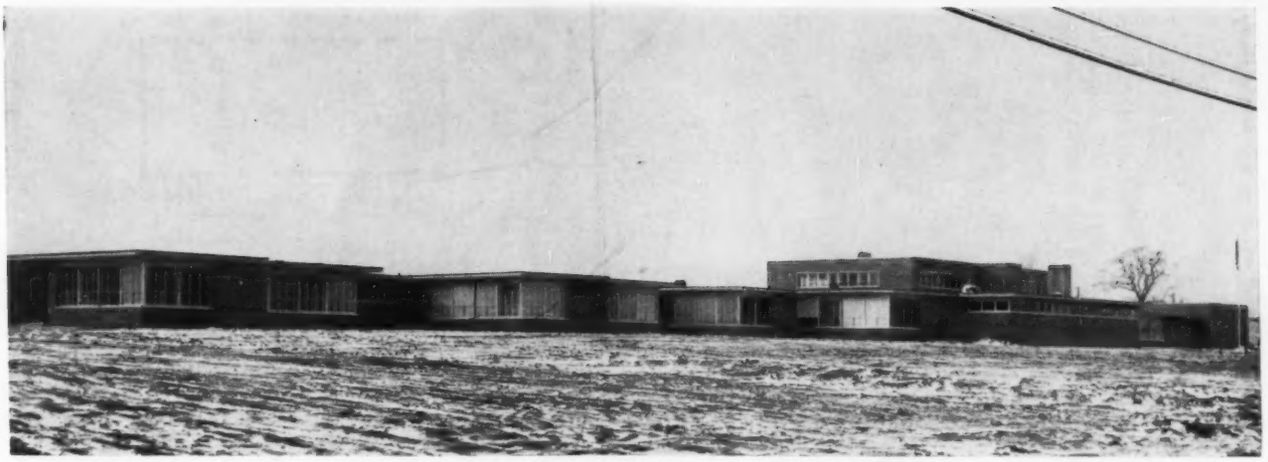
An Election Called

Every member of the assembled group favored the proposals and urged immediate action. The school board went into executive session at the close of the general meeting, and took steps to activate the proposals. An election was called on April 2, on the bond issue and the tax increase.

During the days preceding the election the school board and the members of the Citizens Committee worked diligently to get the voters to the polls. Three days before the election, there was a great deal of concern about the outcome because a late freeze seriously damaged the young grain and cotton crops. These crops were already suffering due to a long drought, and the crop failures in 1951 and 1953, and prospects of another failure in 1955 had seriously damaged the economy of the community.

Both school issues carried by margins of five to one, and the school picture brightened considerably. The school board met on April 14, and sold the entire bond issue at an effective interest rate of 2.48 per cent, the lowest interest rate the schools had ever paid. Plans for a new building were approved, and the school board voted to increase teacher salaries $240 above the minimum state schedule.

The effect of the services of the Citizens Committees cannot be measured. Every member who served was more enlightened about school problems, and they in turn informed others. The morale of the faculty and student body was given a big boost, and the community in general became more school minded.



The Adamsville School, Bridgewater Township Elementary Schools, Raritan, New Jersey — Alexander Merchant & Associates, Architects, New Brunswick

The Unique Adamsville School —

"Only One of Its Kind"

CARLETON M. SAUNDERS

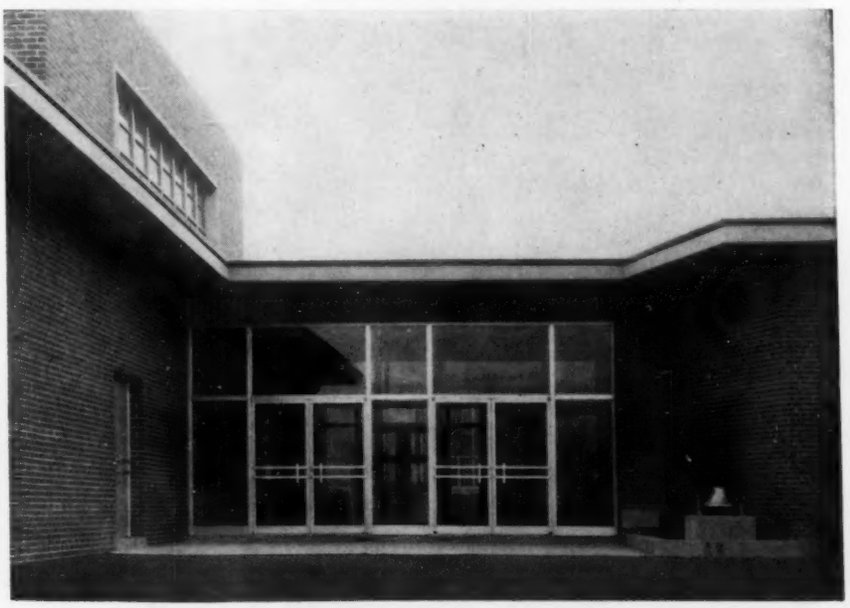
Superintendent of Schools
Bridgewater Township Elementary Schools
Raritan, N. J.

The plan of the Adamsville School (for grades 5 to 8) is unique, in that each of its 24 classrooms is arranged in a cluster of two so that every room has natural light from two sides in the form of corner windows. The classrooms are arranged in two identical wings, grouped around the special rooms, which include a double gymnasium with boys' and girls' locker and shower rooms, administrative offices, library, health suite, faculty rooms, home-economics laboratory, manual arts shop, cafetorium with kitchen and stage, and boiler and power rooms.

Each classroom is 24 by 32 feet with one whole side and two thirds of another side consisting of plate glass windows, with Venetian blinds to control the natural light. The short side of each classroom wall is painted a brilliant color with a harmonizing tint on the other walls. Each room has eight incandescent, 500 watt, silver-bowl fixtures for artificial lighting. Ventilators, fin radiation, and radiant heating under the asphalt tile floors provide heat. An automatic system keeps fresh air circulating into each classroom at all times. Green magnetized chalk boards and green cork boards are found in each room. Steel shelving along one side of the room and a teacher's locker provide storage space. White acoustical tile ceilings absorb many of the ordinary classroom noises. The teachers' chairs and desks are light in color. Children's furniture is varied in size and type. Pupils' clothes are stored in corridor lockers with individual combination locks. A reading table and worktable are found in each classroom. Painted plaster walls and asphalt tile floors vary in color in each classroom and other painted areas.

The faculty rooms have upholstered furniture and facilities for reading and working. One faculty room is located in each of the classroom wings. A committee of teachers recommended the furnishings for these rooms. The women's room is provided with a powder room.

A large, electrically-operated, paneled door separates the gymnasium into two smaller units for boys and girls. Each of the two physical education instructors has a separate office, storeroom, shower, and

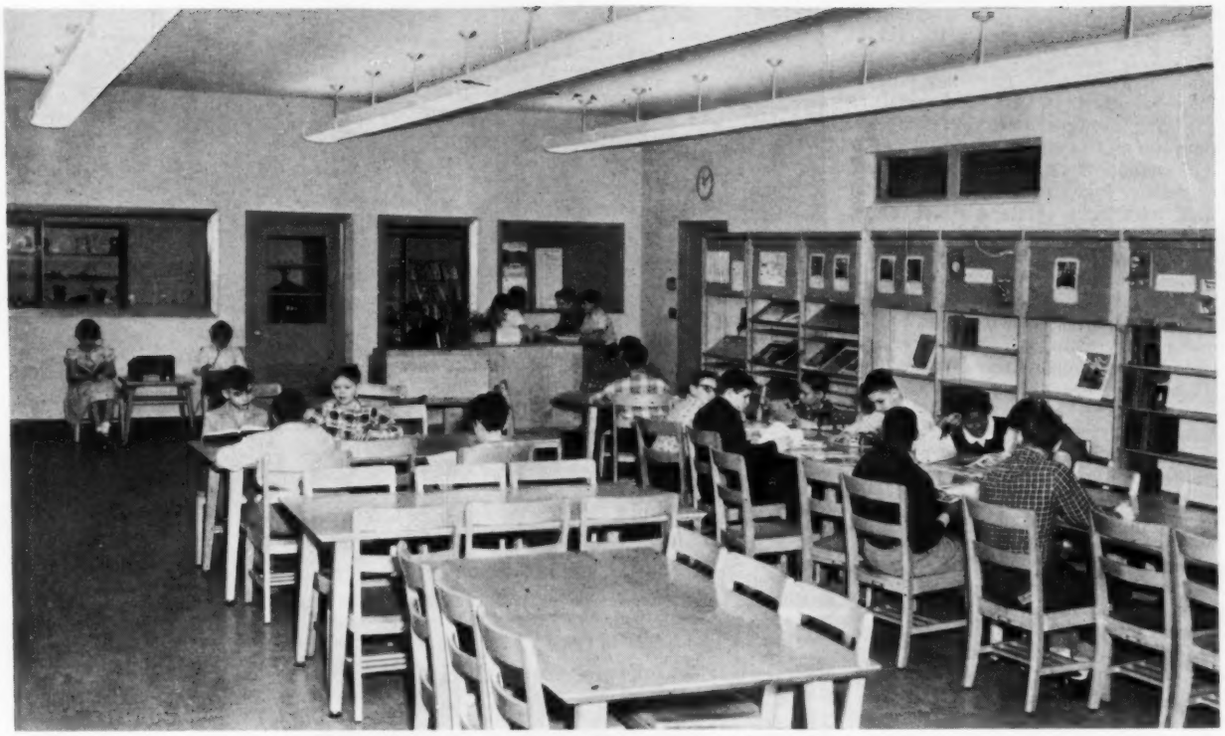


The attractive brick and stone-trim entrance to the school

The floor plan clearly illustrates the clever clustering of classrooms in the Adamsville School, which allows for maximum use of natural lighting.

The well-equipped manual arts room affords boys fundamental training in industrial arts' skills.

toilet. The boys' locker rooms, which include drying and toilet rooms, contain 11 showers, 502 small lockers, and 38 street lockers. The girls' locker room has 460 box



The attractive, functional library of the Adamsville School

(Upper left) The Home Economics Room; (Upper right) the Health Room; (Lower left) the Lobby; (Lower right) the Kitchen

toilet. The boys' locker rooms, which include drying and toilet rooms, contain 11 showers, 502 small lockers, and 38 street lockers. The girls' locker room has 460 box lockers, 40 street lockers, individual as well as gang showers, and toilet facilities. Ceramic tile of pleasing colors provides for low cost maintenance for the shower and locker rooms. Included in the gymnasium are stall bars, four climbing ropes, mats, six basketball backboards. There are separate storage rooms for equipment.

There are three offices — general, principal's, and teachers' workroom. A folding door permits the latter two offices to become one large room for faculty meetings. A storeroom, files under the counter, and a clothes' closet complete the office suite. The master clock, key box, and intercommunication telephone system are located in the general office. A large vault provides safety for important documents, valuables, equipment, and certain supplies.

The general shop includes a darkroom for photography, a storage room, a drying room, and general shop area. A sprinkler system provides for fire protection. The usual equipment found in a shop is available for teaching leatherwork, ceramics, woodworking, arts and crafts, and the graphic arts. A parquet type floor makes for less strain and fatigue. The shop is equipped to accommodate a maximum of 25 pupils in a multiple activity program. Fluorescent lights furnish light; outlets for gas and electricity permit portable equipment. A commercial type washbasin permits rapid hand washing.

The cafetorium and all-purpose room contains sufficient tables to serve approximately 300 children at a serving. The tables and chairs fold and can be stored in the storage room adjacent to the stage and on trucks which slide under the stage. An electrically operated folding door divides the cafetorium for music and small group activities. In the front of the room a large stage (40 by 21 feet) is available for dramatics. It is equipped with spot and border lights and adjustable wings to provide for different kinds of sets.

Toilet rooms in each wing, readily accessible to all students, have ceramic tile walls and mosaic tile floors. A built-in tile ledge for books is a feature of pupils' toilet rooms. Office personnel and visitors have access to toilet facilities adjacent to the main lobby.

COSTS

Land (16 acres)	$ 35,000.00
Test borings	248.10
Extension of water main	3,598.00
General construction	581,071.86
Heating and ventilating	145,900.00
Plumbing	62,429.00
Structural steel	49,005.00
Electrical	70,038.00
Site work	23,608.74
Engineering fees	953.00
Architect fees	56,582.20
Furniture and equipment	59,938.25
Total	$1,088,372.15

Unit Construction Costs

Square Foot	$16.51
Cubic Foot	1.03

Epilogue

The Adamsville School has been occupied since the beginning of the year. Were we to rebuild this building there are certain changes which I would make.

Cafetorium. A larger return dish window from the cafetorium to the kitchen would eliminate some dish breakage and speed up the return of dishes. A continuous strip of tack board above the plastic wainscot would be better than the several individual tackboards which were installed.

Kitchen. Longer tables for drying dishes after they come through the dishwasher would be more serviceable. The stove should be lower for cooks to handle pots more easily. The pot racks should be lower for greater ease in using them. The storeroom and the toilet should be interchanged in position for greater ease in delivering foods. A hood should be installed over the dishwashing machine to draw off steam.

Doors. Doors from offices, special classrooms, and classrooms should have the upper portion of plate glass. Such doors would accomplish two purposes: (1) permit borrowed light from classrooms to light corridors, and (2) permit someone to see if there was any traffic in the corridor before opening the door.

Gymnasium. Provide a ceiling not so fragile as the present acoustile ceiling mounted on metal strips. Blocks break when hit by a volleyball. Place the electric outlets at a lower height. Now, the electric cord from record players and other equipment will not reach them without an extension cord.

Classrooms. Provide wider lockers for teacher's supplies and clothes. Provide one section of shelving to hold large paper.

Faculty Rooms. Install clear glass instead of cloudy glass in exterior windows. Cloudy glass was installed to harmonize the exterior of the building architecturally.

The Cafetorium and multi-purpose room (upper) can accommodate 300 children at a serving. (Lower) The gymnasium has an electrically-operated paneled door for dividing the large room into two smaller units.

The Willard Elementary School, Willard, Missouri — I. Dale Allmon, Architect, Springfield

The Willard, Mo., school district met the problems of quick, low-cost construction by using modern, fire-proof materials in its new . . .

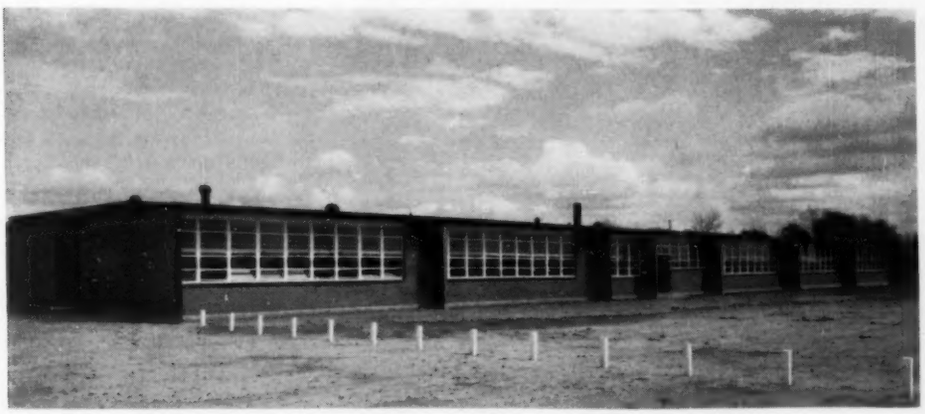
Willard Elementary School

The problems that faced the reorganized School District, Willard, Mo., were much like those confronting many other school districts. First, limited funds; therefore new construction must offer the greatest amount of school space for each dollar spent. Second, fire safety; semifireproof buildings were desired to safeguard the lives of the children and to avoid the high insurance rates now paid on old school buildings.

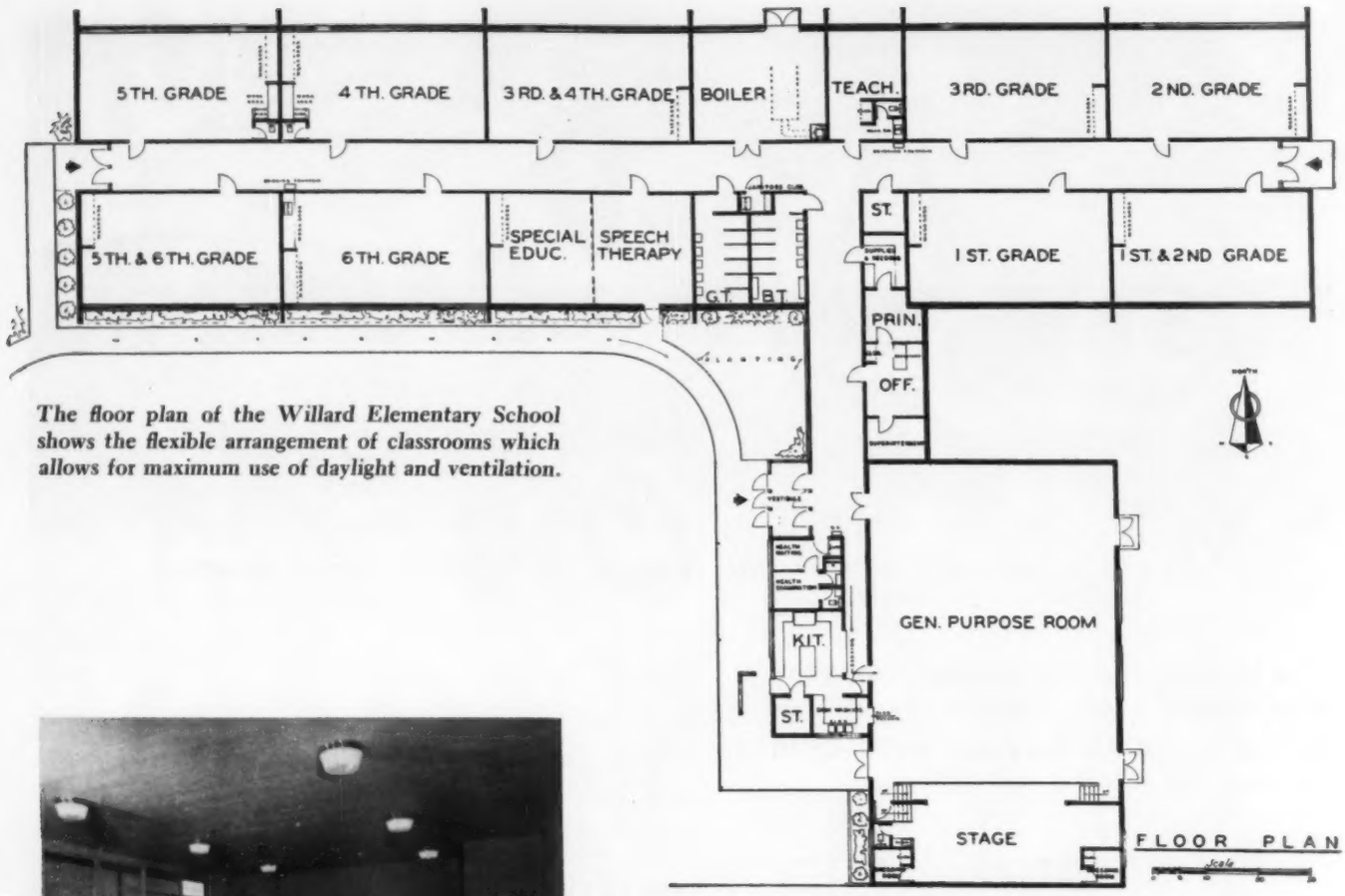
A large enrollment increase in the elementary grades made immediate expansion imperative. It was found that a 10-classroom elementary building was needed with multi-purpose room, health suite, general offices, teachers' lounge, and other facilities, to be ready for occupancy for the fall term in 1954. The school board purchased a 40-acre tract at the edge of the city. This would provide sufficient grounds for an elementary and a high school.

Functional Design

Next, the school board commissioned Springfield architect I. Dale Allmon to design a school that offered the desired economy in initial cost and in future maintenance. A school of functional design was decided upon, one that would not only embody features of economy but, at the same time, would be a credit to the community and to the reputation of the architect.



Functionally designed and constructed, the attractive Willard Elementary School makes effective use of simple erection projects — metal roof panels, steel sash, masonry walls, and concrete floor slabs.



The floor plan of the Willard Elementary School shows the flexible arrangement of classrooms which allows for maximum use of daylight and ventilation.

A typical classroom (above) have painted acoustical panels for the ceiling, while the outside corridor (below) uses prefabricated metal window frames and hardware, considerably reducing installation, fitting, and hanging costs.

Preliminary studies, from the standpoint of insurance rates, ruled out wood framing. After a study of various construction systems, a solution was arrived at which entailed the use of simple erection products — metal roof panels, steel sash, metal door-frame-hardware units, masonry walls, concrete floor slabs, and similar construction materials.

The building was to be one story high. Roof decking, therefore, became an important item. A combination structural-acoustical cellular steel roof panel was selected. This type panel also reduced construction costs by eliminating the need for installing structural members for lateral bracing in the classroom wing, to protect it from windstorm or other disturbances. Panels offering a clear span of 21 feet were specified, with 6-inch deep acoustical panels in the classroom wing and 4½-inch deep acoustical and nonacoustical (50 per cent of each) over the multi-purpose room. The panels were easily welded to the bearing plates atop the exterior and corridor walls, giving an unbroken ceiling sur-

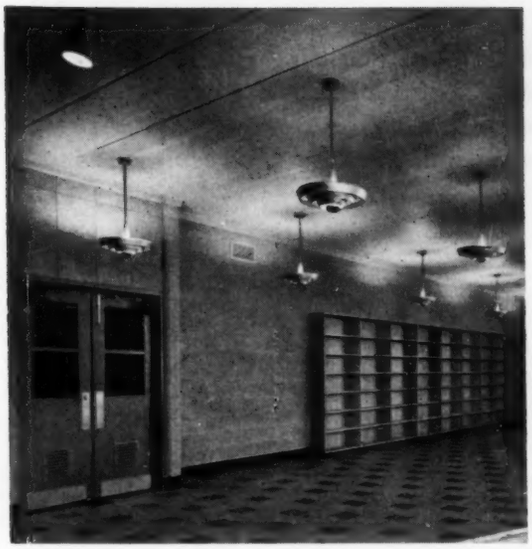
face throughout. The ceiling surface was merely painted to provide an attractive finished ceiling with a minimum of materials and labor expense. A 1½-inch thick rigid insulation board was installed over the panels for roof insulation. In all, 20,200 square feet of panels were used.

Classrooms were designed to take full advantage of natural daylighting. This was accomplished through proper orientation of the building and through use of walls of windows.

Quickly Erected

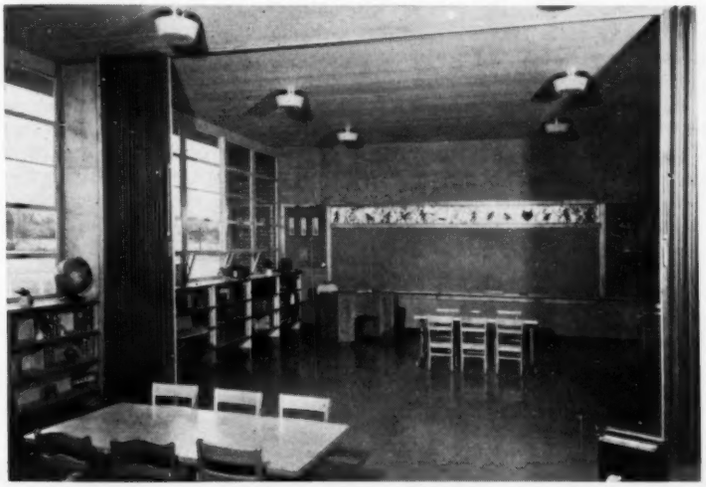
Simplified erection was an important basis upon which building materials were selected. Thus, the school was completed, accepted, and ready for occupancy 45 days before the estimated time of completion.

The building was erected at a cost of $184,164.40 or $9.13 a square foot, which included a large black-topped drive and parking lot, a deep well and 4000 gallon water storage tank, a state approved septic tank and filter bed, site grading, automatic signal system, asphalt-tile flooring, complete kitchen, and lunch facilities, etc. The building itself, exclusive of outside improvements, cost $8.19 a square foot.

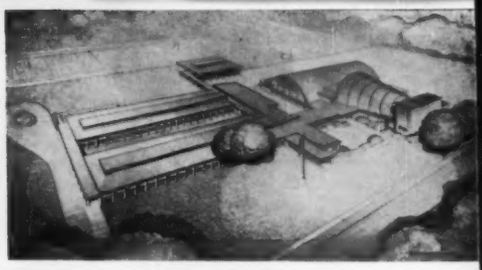


Attractive asphalt tiling in the office (above) accents the attractiveness of the exposed block interior.

Below: A cheerful special education room for speech correction and the physically handicapped. A folding door can divide the room for double duty.



The expansive multi-purpose room shown below has complete lunchroom facilities. A well-equipped kitchen is also included in the school. The handy stage area in the back of the room allows the multi-purpose room to be used for many social activities.



The school board of Forest Grove, Ore., wanted to construct a high school that would serve future as well as present community needs. The result is the

Forest Grove Union High School

The plan of the school board of Forest Grove, Ore., was to provide a new high designed to serve most effectively present as well as future school and community needs.

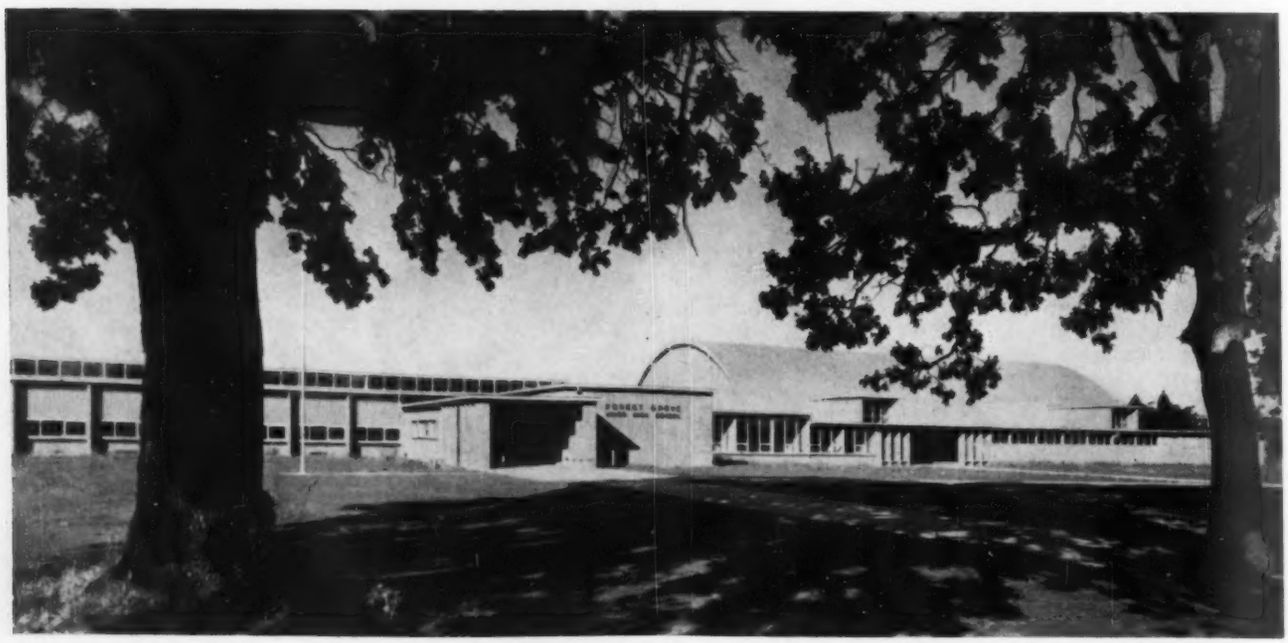
The modern building is one-story reinforced concrete construction with nonbearing interior walls which would allow for future expansion. The ceilings of the school are white acoustical plaster. The interior walls in office area are grooved wood paneling; plastic asbestos tile is used in the main corridor; classroom walls are plaster. The floor is reinforced concrete slab with asphalt tile covering.

Present facilities, which include 19 regular and special classrooms to provide a broad educational program, can accommodate 550 students. A gymnasium and a large cafeteria also serve student needs.

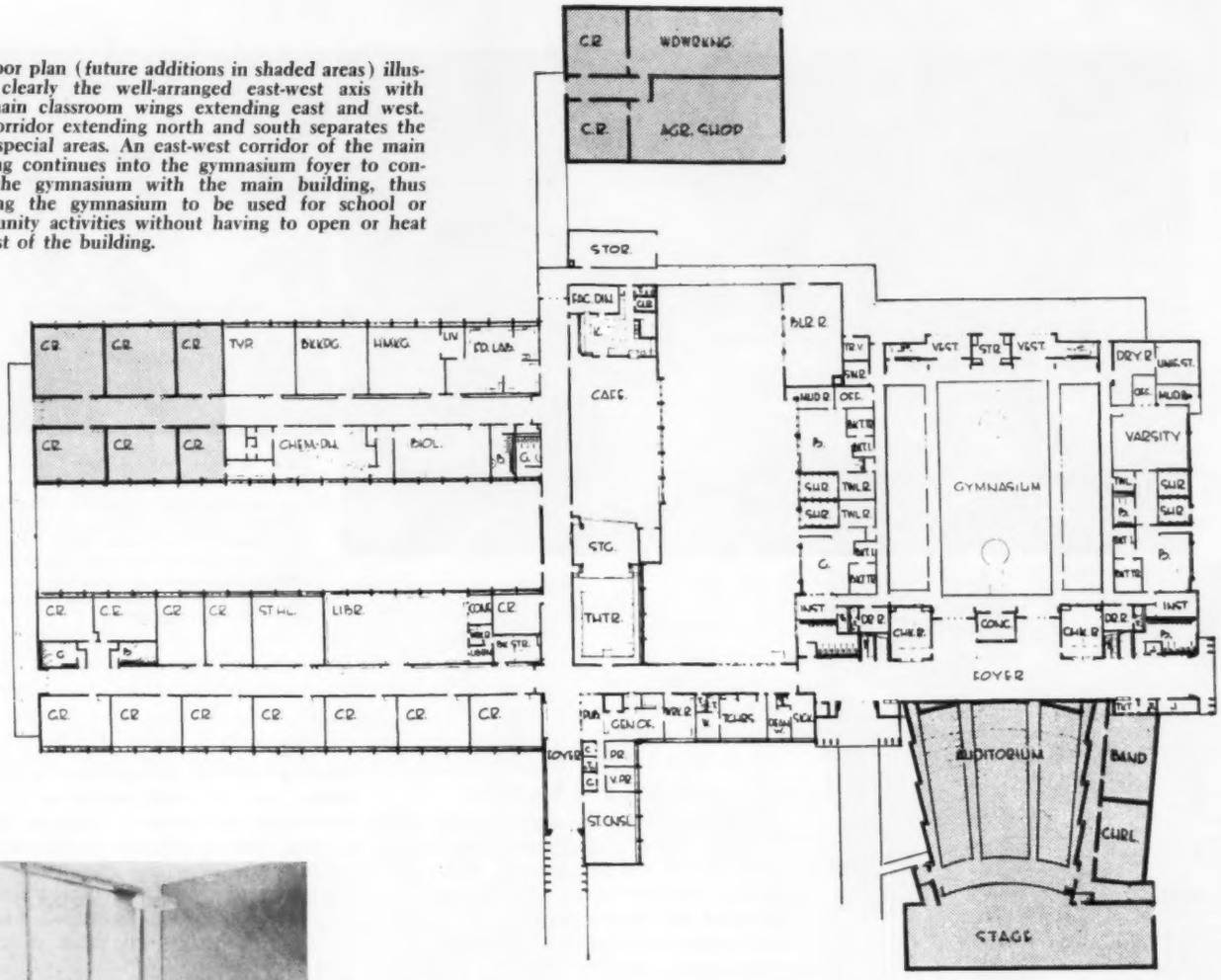
Future expansion will provide an industrial arts and agriculture building, an addition of six classrooms, and a third complete wing of 14 classrooms. These facilities will be able to accommodate 1200 students. Besides extensive landscaping and athletic field developments, an auditorium of substantial size for use by student and community projects is prominent on future building plans.

The total cost of this modern high school, including the main building and the gymnasium, was $785,000, or $9.30 per square foot for floor space of 79,388 square feet. The original 30-acre site will provide adequate future development space.

The Forest Grove Union High School, Forest Grove, Oregon — Donald W. Edmundson and Neil R. Kochendoerfer, Architects



The floor plan (future additions in shaded areas) illustrates clearly the well-arranged east-west axis with two main classroom wings extending east and west. The corridor extending north and south separates the other special areas. An east-west corridor of the main building continues into the gymnasium foyer to connect the gymnasium with the main building, thus allowing the gymnasium to be used for school or community activities without having to open or heat the rest of the building.



A typical classroom, showing liberal use of bilaterial windows, which together with the clerestory lighting — for east-west corridors and north classrooms — provide extensive natural lighting. For artificial lighting, incandescent concentric ring type fixtures are used.

The functional simplicity of the building is shown by its dignified entrance (left). The library (above) will seat 84 students. It includes the library conference room, library workroom, librarian's office, and library book storage room. Excellent color harmony is gained in the library, as in other areas, through selective use of pastel colors.

The science department rooms and laboratories are fully equipped for teaching physics and chemistry, electronics, photography, and biology, providing the very latest in cabinets and tables. In these rooms, as in the corridors and classrooms, steam convectors for heating and univent units thermostatically controlled are used.

The food laboratory, part of the Home Economics layout, features steel cabinets and wood tables.

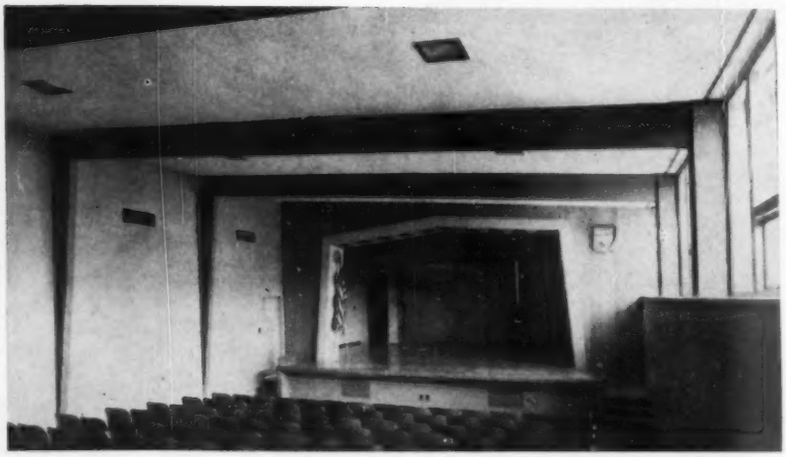
Special Rooms and Facilities

Included among the special rooms and facilities offered in the Forest Grove Union High School are the general office with public reception space, rooms for the principal and vice-principal, two student conference rooms, student counseling and board room, teachers' rooms, students' health room, and dean of women's office.

The student cafeteria will seat 300 persons while its well-furnished kitchen includes a spacious storage room, a walk-in cooler, and an easily accessible outside covered garbage enclosure. Adjacent to the kitchen, there is a faculty dining room.

The gymnasium building houses two coaches' rooms, two physical education instructor's offices, two locker and dressing rooms, two shower and towel rooms, a large boiler room. The future seating capacity of the gymnasium will be 3200.

A custodians' building and storage room is separate from the main building.



Covering practically an acre of ground, the gymnasium (above) includes two balcony floors and now seats 1,600 persons. The roof is a specially built-up arch supported by laminated beams. The Little Theatre (right) seats 152 persons.

Curious Conflict

THE AMERICAN
School Board Journal

An Independent Periodical of School Administration

William C. Bruce, *Editor*

SCHOOLS AND FEDERAL REORGANIZATION

SO FAR as public school organization and control are concerned, there is little new in the recent recommendation of the Commission on Intergovernmental Relations which stated its fundamental idea of the proper duties of federal, state, and local governments in these words:

"Leave to private initiative all the functions that citizens can perform privately; use the level of government closest to the community for all public functions it can handle; utilize co-operative intergovernmental arrangements where appropriate to attain economical performance and popular approval; reserve national action for residual participation where state and local governments are not fully adequate, and for the continuing responsibilities that only the national government can undertake."

The Commission reflected the general attitude of the present Republican Administration when it recommended "that responsibility for providing general public education continue to rest squarely upon the states and their political subdivisions" and opposed a "general program of federal assistance." The Commission, however, has advocated as justifiable federal aid to school construction where the states lack necessary resources. Several dissenting members of the Commission pointed to the fact that the Commission wanted more rigid standards of grants-in-aid applied to education than to other programs of less social importance.

The test of Republican sincerity and interest in education will be found in the willingness of Congress to promptly vote at least the meager school construction aid bill now before the House.

A PRESIDENTIAL JOB

THE official success of the president of a board of education depends largely on his effective leadership of his associates. This leadership differs from that of the superintendent of schools; it is the leadership of a citizen, of a representative of the community; it exhibits itself chiefly in ability to maintain on the part of the board a high level of devotion to the efficiency of the schools; it exhibits itself also in the contacts with citizens, parents, and professional staff through which unified support of the educational program is secured.

The leadership of the superintendent of schools, so far as the board of education is concerned, is essentially creative and executive. The leadership of the president of the board, on the other hand, is essentially representative and official. The leadership of both, in the words of John L. Stenquist, "depends on insight and wisdom and the ability to inspire an intellectual following. Its hallmark is the capacity to evaluate what may be invisible to the multitude, to see beyond the horizon, to correctly evaluate the future course of events and time. A significant measure of creative leadership is its quality of wisdom in appraising remote values; its basic capital consists of its intrinsically superior judgment, knowledge, and skill."

The president's leadership is best exerted in his conduct of board meetings. It is here the president must set the spirit and achieve the purpose of the board; he must insure an adequate understanding of all business, prevent the waste of time, obviate bickering, and maintain that element of dignity and constructive work which the importance of the schools and their total value to the community deserve. It is the job of the president to achieve a spirit of effective co-operation in handling the main purposes of the schools in spite of occasional serious differences of opinion. The ultimate test of a president's work is his ability to turn differences and misunderstandings into constructive action by the board.

One recurring presidential job that is a test of leadership is the introduction of new members to their office. This task is sometimes left entirely to the superintendent, who certainly has here an important responsibility. But most aspects of a new member's attitude toward the growth and progress of education in a community, his understanding of his functions, his relations to the superintendent and the professional staff should be set up by the president in one or more confidential talks and in the manner of recognition in the board meetings.

The ultimate tests of a president's leadership is his handling of (1) a crisis or (2) a long-range program of school improvement. The former usually involves firmness and tact in resisting pressure and in rallying as nearly as possible a unanimous democratic attitude on the part of the board members. Just here fundamental principles of administration and education must be thoroughly understood and adhered to. If personnel relations are involved, the president should insist that the bargaining be fair but that the ultimate welfare of the children be fully protected.

In any long-range program of school improvement, be it new buildings, an increase in taxation, or the introduction of a new teaching service, the chairman of the school board can pick up the public promotion of the program at points and in a manner not possible to the superintendent. It is here the chairman can prove that he is a man of large ideas, that he can carry forward under opposition, that he can rally support for an extended period of time. Possibly the true qualities of a board president's leadership can be judged only by a backward glance after he has relinquished his office.

REFUSE PAY

THE members of the Durham, N. C., board of education have refused to accept any compensation. Under the state law, they may vote themselves a maximum of five dollars for each meeting attended, plus an allowance of seven cents per mile for travel in connection with the official work of the board.

Commendable as the civic devotedness of the Durham board is in its unwillingness to gain any monetary return whatever, the widely accepted practice of a nominal fee for board members has sound reason behind it. Membership on a school board inevitably entails personal sacrifices of time from business or profession, or at the least from needed recreation and rest. In rural areas, board members often travel long distances at considerable expense to themselves. The directors of any corporation comparable in the size of its operations of a city, or even a consolidated school district, would hardly serve at fees less than five to ten times the amounts paid to board members.

N.S.B.A. Executive Committee Meets at U.S. Office of Education

EDWARD M. TUTTLE

"You know back home we hear a lot of talk about the danger of Federal control of education, and that the people in Washington are trying to tell us how to run our local schools. I've sat for two days in this meeting, listening to the discussion, but I haven't found anybody here who wants to put any Federal control on us. All I've found is a sincere desire on the part of a lot of well-qualified people to be of service to our schools. It also seems clear that they are not being given half a chance to do what needs to be done. I've completely changed my mind about the whole thing. Federal control seems pretty far away."

In essence this reaction, expressed by a school board member near the end of a two-day meeting of the executive committee of the National School Boards Association with the top personnel of the U. S. Office of Education, voiced the sentiments of all. The meeting, held on June 20–21 in Washington, D. C., at the invitation of the Commissioner of Education, gave the leaders of the N.S.B.A. a first-hand opportunity to learn how the Office operates and what are the true functions and responsibilities of this Federal Government agency which, since 1867, has been established to serve the schools and colleges of America.

Who Met Whom

All members of the N.S.B.A. executive committee were present for this meeting. These included O. H. Roberts, Jr., of Indiana, *president*; Mrs. H. M. Mulberry of Illinois, *first vice-president*; Dr. Taylor T. Hicks, of Arizona, *second vice-president*; Cyrus M. Higley of New York, *director*; Carl B. Munck of California, *director*; J. H. Woodall, Sr., of Georgia, *director*; and Edward M. Tuttle, N.S.B.A. executive secretary, *ex-officio*. Present also was Maurice E. Stapley of Indiana, director of the N.S.B.A. project on Community Conferences on Education.

Sessions were held from 10:00 a.m. to 4:00 p.m. the first day and from 9:30 a.m. to 4:00 p.m. the second day, with joint luncheons each day. For the Office of Education, Commissioner Samuel M. Brownell spent considerable time with the group on both days but because he was subject to being called away, he asked Rall I. Grigsby, Assistant Commissioner in charge of Grants, to act as chairman of the meeting.

At various times Dr. Grigsby introduced members of the Office staff who described their work and answered questions. Among those who talked were C. O. Fitzwater, Specialist in County and Rural School Administration of the Division of State and Local School Systems; James H. Pearson, Director of the Division of Vocational Education; B. Alden Lillywhite, Director of the Technical Operations Branch of the Division of School Assistance in Federally Affected Areas; Lloyd E. Blauch, Acting Director of the Division of Higher Education; and Oliver J. Caldwell, Director of the Division of International Education. Other staff members joined the group at luncheon times.

A Unique Occasion

Never before have the school board leaders of America had direct contact with the Office of Education and members of its staff. They quickly found common ground and the discussions held around the conference table were intensely interesting and profitable.

Obviously it was impossible in the space of two days to get more than an over-all view of the work of the Office and some examples of its operation. Each presentation by a staff leader drew a barrage of questions from N.S.B.A. committee members as they sought to learn the reasons for that particular phase of the work and how it is carried on. With this background of information, the discussions finally centered around two questions: (1) how the Office of Education can be of greatest service to the National School Boards Association and its affiliated state associations with their thousands of local member boards; and (2) how the N.S.B.A. can be of assistance in strengthening the services of the Office of Education. Some answers to these questions are given below.

Writing subsequently to Commissioner Brownell to express the great appreciation of his executive committee for the opportunity afforded by this meeting, N.S.B.A. President Roberts added: "I sincerely hope and believe that this will open up a new era of co-operation and mutual help and understanding between the United States Office of Education and the National School Boards Association. I was impressed by the fact that both bodies are involved in a very difficult period of growth and tradition which should lend itself to real opportunities for co-operation. I would hope that with the pointing up of our joint responsibilities to American education, the U. S. Office and perhaps the N.S.B.A. can take the lead in correlating and promoting post-White House Conference accomplishments. We stand ready to be of any help to you that we can."

Background Information

In opening the meeting, Commissioner Brownell pointed out that from its very beginning the United States Office of Education was designed primarily to be a clearinghouse for the collection and dissemination of information concerning education in America, including schools and libraries. It also was charged with the administration of certain grants-in-aid to education, beginning with the land grants to A. and M. Colleges in 1868, adding the grants to vocational education from about 1917 on, and more recently including the grants for school construction, maintenance, and operation in federally affected areas embodied in Public Laws 815 and 874 of 1950. Two laws in 1953–54 gave the Office authority to engage in co-operative research with state departments of education, colleges and universities, and other agencies, and provided for the creation of a lay Advisory Committee on Education to the Secretary of Health, Education, and Welfare which might explore and recommend areas of needed research. To date the Congress has not appropriated any funds to carry out these laws.

At the present time the Office of Education consists of five major divisions, as follows: (1) State and Local School Systems, employing 92 persons; (2) Vocational Education, 63; (3) Higher Education, including teacher education, 26;

(Continued on page 48)

Curious Conflict

Man's capacity for justice makes democracy possible, but man's inclination to injustice makes democracy necessary.

— REINHOLD NIEBUHR

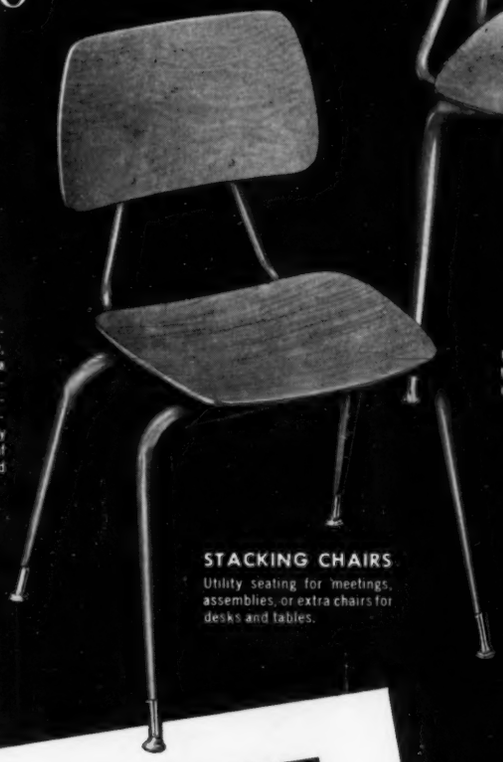
Most of us subscribe to the principle of equality on which democracy is founded. Collectively we agree that all citizens shall be treated alike according to the laws established by our representatives. But individually we often seek preferential treatment, and even convince ourselves that we are entitled to take advantage of some opportunity that will profit us though it may injure others. Our self-interest tends to override our sense of justice. Then it is that we personally need the controls which we have acknowledged should apply equally to all. — E. M. T.

N.S.B.A.

(Continued from page 46)

Newest, finest of all school furniture

Stacking simplifies storage, recovers space quickly by easy, secure nesting within floor area of a single unit. Legs: 1¼" tapered tubular steel with ferrule-type chrome-plated rubber-mounted glides, spread slightly for stability. Seat and back of 5-ply hardwood impregnated with water-resistant resin.



STACKING CHAIRS
Utility seating for meetings, assemblies, or extra chairs for desks and tables.

ARM CHAIRS
Ideally suited for use with teachers' desks, or in lounge or lobby.

KUEHNE
(SAY "KEE-NEE")

A COMPLETE LINE

Crisply modern and functionally correct—ruggedly and rigidly built to stay like new indefinitely—scientifically contoured for all-day comfort and proper posture—beautifully, durably finished in eye-resting colors or chrome—and at a cost surprisingly low.

Here is classroom furniture that reflects to fullest advantage Kuehne's 32 years of experience in superior tubular furniture construction—furniture that truly anticipates the school of the future—styled right, made right and priced right.

Send for illustrated brochure

KUEHNE (KEE-NEE)
MANUFACTURING CO. · MATTOON, ILLINOIS
World's Largest Manufacturer of Tubular Furniture

N.S.B.A.

(Continued from page 46)

(4) International Education, 10; and (5) School Assistance (grants), 140 persons, of whom 58 are field personnel in nine regional offices over the country. In addition to these five divisions, there are two other services: Research and Statistics, employing 23; and Reports and Publications, 16. In general terms, it can be said that half of the Office staff consists of professional personnel and half clerical personnel. All employees except four top-level positions are under Civil Service, and in this connection it is interesting to note that the Office has its own Board of Civil Service Examiners to pass upon applications for positions. This board, dating back to 1883, is one of the few instances of civil service operation supplementary to the general Civil Service Commission. Its objective is to insure the highest type of qualified personnel in the field of education.

Without changing the divisions listed above, Commissioner Brownell has recently reorganized the Office into three broad areas of operation each to be in charge of an Assistant Commissioner. These areas are (1) Research, (2) Services, and (3) Administration of Grants. A very complete and detailed story of the revised structure of the Office of Education appeared in the June, 1955, issue of the JOURNAL, written by the Washington reporter, Elaine Exton.

U. S. Commissioner of Education, Dr. Samuel M. Brownell (center) is shown receiving one of the first kits for Community Conference leaders. The kit was presented by Theodore C. Sargeant (right), president of the Massachusetts Association, and James W. Whitehead (left), its executive secretary.

Areas of Co-operation

It was mentioned above that answers were sought to the questions of how the U. S. Office of Education and the N.S.B.A. could be of mutual assistance to each other.

Members of the N.S.B.A. executive committee felt that there are at least three areas in which the Office could assist school boards and their associations far more than heretofore if it were given the resources to do so. These areas are those of co-operative research, publications, and consultative services. A word about each.

Research in the school board field is in a haphazard and unorganized condition. There has been too little of it and it has been too widely scattered. There is no correlating agency responsible for finding out what has been done and what needs further to be done to fill up the gaps and provide needed basic information. Adequate provision for research by the Office of Education should include this area of local school board policy and operation.

Publications of the Office of Education very rarely reach school board members even when they deal with subjects on which board members need to be informed. There is also the problem of presenting the findings of research and the problems of professional education in such a style of writing and printed format that lay board members, parents, and other citizens may read them with interest and understanding. Wider distribution and greater adaptability of publications both call for more adequate resources than are available at present.

The specialists and experts on the staff of the Office of Education should be more readily accessible for consultative services in all parts of the country. There are fine people with a wealth of information in the Office, but they have little opportunity to give personnel service outside Washington. Appropriations for travel are practically nonexistent, and school boards associations, among other agencies in the field of education, are so limited in their own resources as not to be able to pay in full the expenses of consultants from the Office who could make great contributions to state and regional conferences, workshops, and study groups.

Turning to the question of how the N.S.B.A. can help strengthen the Office of Education, obvious answers are suggested by what has already been said about how the Office could better serve school boards. The first need of the Office is for an annual budget commensurate with the work it is designed to do. A governmental agency is handicapped in promoting its own work. It cannot go to outside organizations and ask for their active support. It can only make known its services, actual and potential, and leave it up to those whom it is intended to serve to determine whether they are receiving the quantity and quality of service they desire. It seemed obvious to the executive committee that the N.S.B.A. and its affiliated state associations and local school boards could benefit tremendously if the U. S. Office of Education were enabled to expand its present limited offerings in the areas of research, publications, and consultative services. Intelligent support of Office budget proposals would seem to be the kind of appropriate and helpful co-operation that could be extended by school boards associations and by local school boards.

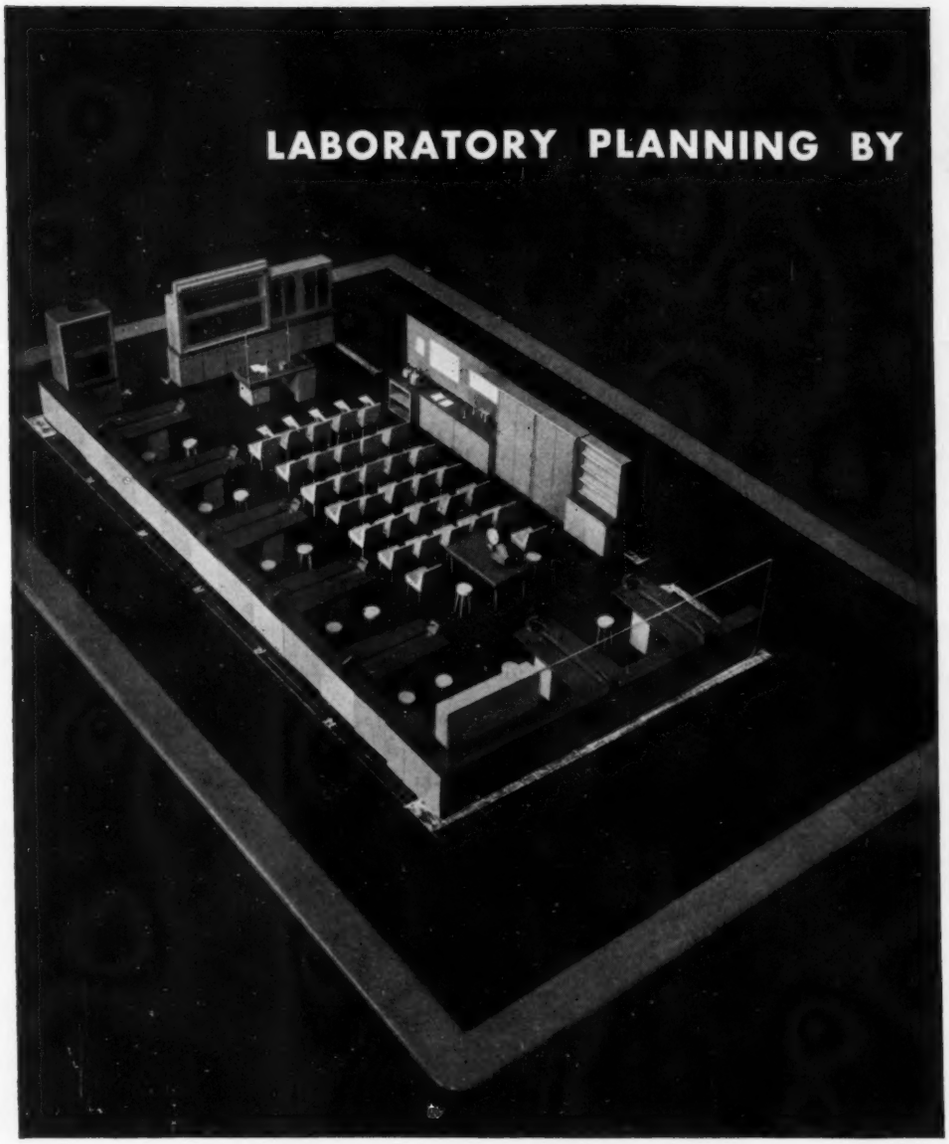
It would also seem that as time goes on more and more opportunities should be found for joint committees of U. S. Office personnel and school board leaders to work on specific problems as they arise. For example, what research would be most timely and helpful? Is a proposed publication in proper form to interest and assist school board members? In what areas should consultative services be expanded?

Office Budgeting and Finance

Board members are citizens drawn from the ranks of business and industry, the professions, farmers, housewives, etc. Most of them have had experience in financing their own affairs and appreciate the problems involved even under the most favorable circumstances. Those who have served their local boards for any length of time also have learned something about raising and handling public money for a tax-supported service. But it was a revelation to members of the N.S.B.A. executive committee to learn how the U. S. Office of Education has to operate budgetwise as an agency of the Federal Government.

In the first place, estimates for needed money have to be made far in advance. Commissioner Brownell and his staff are now engaged in planning a proposed budget for the work of the Office in the year beginning July 1, 1957, trying as best they can to foresee what the legitimate needs and demands will be at that time. This budget then has to go through the following steps on its way to appropriation: It has to be approved by the Secretary of the Department of Health, Education, and Welfare. It has to be approved by the National Bureau of the Budget. It has to be approved by the President's advisers and by the President himself before it is incorporated into his budget message to the Congress next January. Once introduced into the Congress, the Office of

(Concluded on page 52)



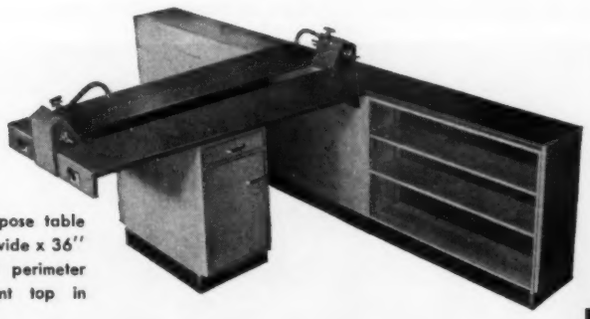
UNAFLEX

OPENS VISTAS TO BETTER LABORATORY EQUIPMENT

Typical "Life-Like" planning of a multi-purpose laboratory, 24'0" by 48'0", executed with exact scale models at Sjöström's Imagineering Department.

The UNAFLEX "Life-Like" laboratory planning service gives you a perfect picture of how perimeter planning works. A multi-use room is created, offering the school board an excellent investment: a room, no longer confined only to science classes, that can be used *every hour of every day*. For teachers and students its professional atmosphere for experimentation is ideal, and maximum use is made of natural lighting. During non-experimental classes the lecture area avoids distractions caused by fixtures and instruments. The multi-purpose tables themselves have extremely useful and flexible base units, allowing for station issue or for 2 to 4-class individual issue.

Finally, the multi-purpose table has the advantage of easy plumbing accessibility. Initial plumbing installation is greatly simplified, whether the room is new or old, since no floors or walls need to be ripped open.



UNAFLEX 4-student multi-purpose table No. 640B 7'0" long x 7'0" wide x 36" high. This table introduced perimeter planning. With acid-resistant top in optical green finish.

JOHN E. SJÖSTRÖM COMPANY, INC. *Makers of*

1711 NORTH TENTH STREET, PHILADELPHIA 22, PA.

UNAFLEX

More and better use of daylight

FOR SCHOOLROOMS OF THE NATION

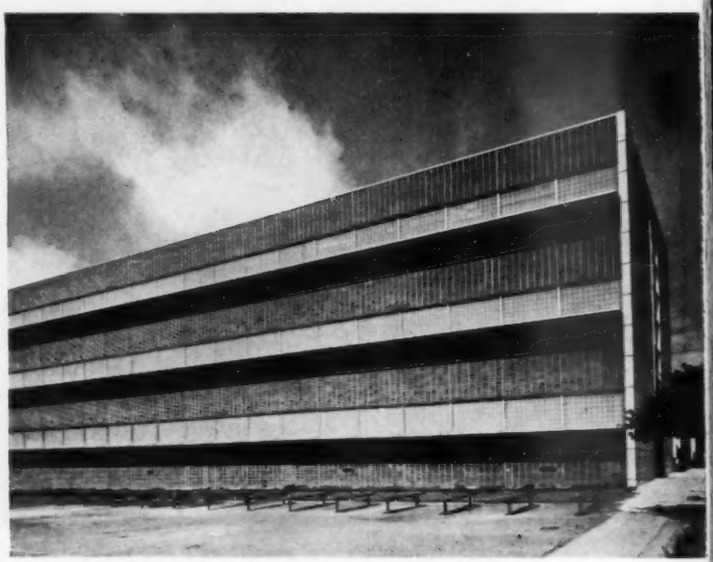
with glass block walls

From ocean to ocean; border to border . . . from elementary school to college building . . . today's really modern new schools bear one striking resemblance: Panels of Owens-Illinois Glass Block*.

Why? Because lighting research has proved it is *quality* not *quantity* of daylight that creates good seeing conditions. The ideal seeing environment consists of steady, even lighting without glare and harsh contrasts.

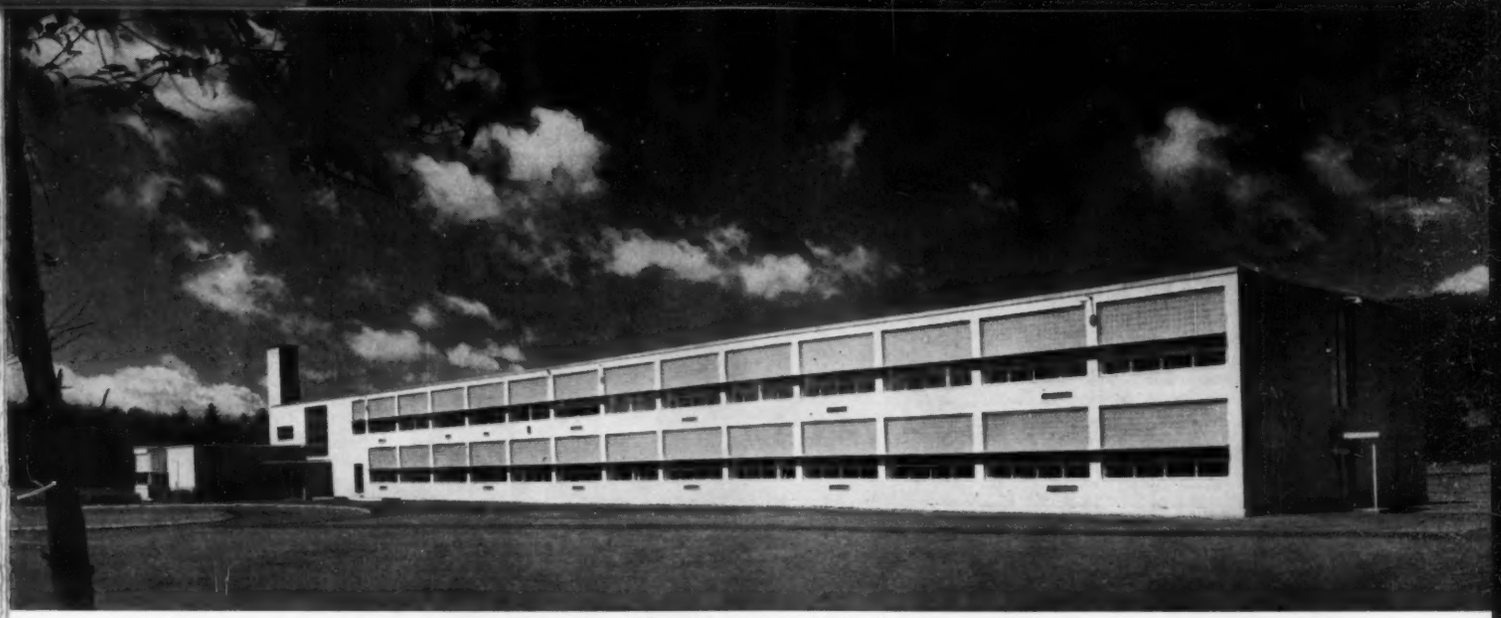
Owens-Illinois light-directing Glass Block meet these requirements . . . *exactly*. The prisms within the block spread light evenly over all parts of the classroom from early morning to late afternoon. There is no glare and no shades are necessary. Because Owens-Illinois Glass Block are a modular building material, architects have the widest freedom in their design.

MASSACHUSETTS, North Andover. North Andover High School. Adden, Parker, Clinch and Crimp, Architects. The combination of Owens-Illinois Toplite Roof Panels and light-directing Glass Block give this shop shadowless, well-distributed and diffused daylight.

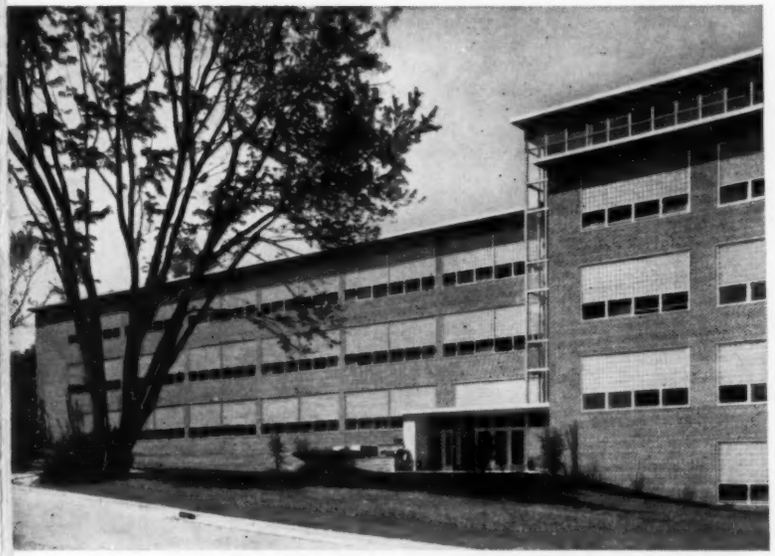


CALIFORNIA, Berkeley. Burbank Junior High School. Jack Warnecke, Architect. Owens-Illinois modular Glass Block fit with Roman-size brick in stack bond to provide an unusual masonry treatment.

MASSACHUSETTS, Needham. Broad Meadows School. Hugh Stubbins, Architect. The interior of this gymnasium is well lighted because light-directing glass block direct light up and diffuse it over the entire room.

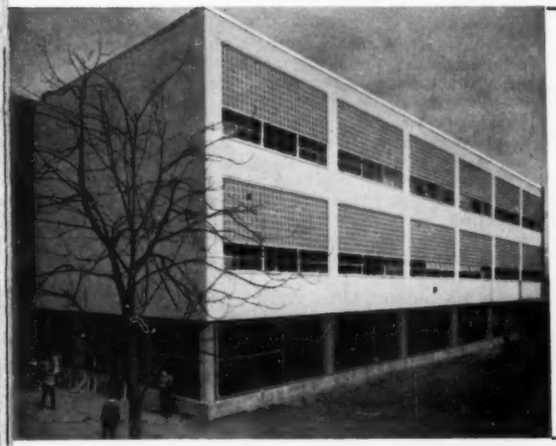


NEW YORK, Star Lake. Clifton-Fine Central School. Reisner, Urbahn, Brayton and Burrows, Architects. Note how the Owens-Illinois Glass Block panels and vision strip windows framed with masonry form a rhythmic beauty for this façade.



MICHIGAN, Kalamazoo. Western Michigan College. Ralph R. Calder, Architect. Owens-Illinois Glass Block set in aluminum frames which are flush with exterior wall add to attractiveness of modern, narrow brick piers.

MASSACHUSETTS, Boston. Northeastern University. Shepley, Bulfinch, Richardson and Abbott, Architects. Because glass block insulate as effectively as an 8" brick wall, such a huge expanse of block was practical even in Boston's climate.



WASHINGTON, Seattle. Lawton School Addition. Young and Richardson, Architects. Owens-Illinois Glass Block are laid up with regular masonry materials. They are inexpensive to maintain . . . hard to break.

Your present school, or one you are planning, can have the same good daylighting that these schools have. Write for the details. Address: Kimble Glass Company, subsidiary of Owens-Illinois, Dept. AS-8, Box 1035, Toledo 1, Ohio.

Formerly known as INSULUX

OWENS-ILLINOIS GLASS BLOCK
AN (I) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES · TOLEDO 1, OHIO

N.S.B.A.

(Concluded from page 48)

Education budget is subject to hearings before appropriation committees in each house and to a final vote on the floor of the Senate and House.

At each and every step along the way the budget faces revision downward. For example, it may start out at 6 million dollars and be reduced successively to 5 million dollars; to 4 million dollars; to 3½ million dollars; to 3 million dollars. Each time the amount is reduced, the Office staff has to revise completely its original estimate, item by item, to determine which services to curtail in order to keep expenditures within the approved amount, and then submit this revised budget to the next approving body. An immense amount of time must be devoted to doing and redoing estimated budgets without any assurance before final action of the Congress that the work won't have to be done all over again. Year after year this process goes on, always with regard to money for operations at least two years in advance.

It is probably inevitable that the appropriation of money by the Federal Government has to go through some such process, but firm support for a carefully developed Office of Education budget by agencies it is designed to serve, like school boards and their associations, might help to cut down the number of times and the amounts it is reduced along the way by the various approving bodies, and to have it approved closer to original recommendations.

For example, it was mentioned earlier that no appropriation has ever been made for the co-operative research program approved by the Congress, in principle, in 1953. It has also been pointed out how greatly such research is needed; in fact, research really should be basic to much of the other work of the Office and to the advancement of American education along sound and intelligent lines. Congress ought to be helped to see that provision for adequate research is a first condition to wise appropriations for other services. Too long the cart has been before the horse in this matter. If the Office of Education is primarily designed to be a clearinghouse of information on the status of education over the nation at large, under our established system of state and local control, then the Office needs adequate facilities to uncover, compile, and interpret the facts of existing conditions in co-operation with all the states and territories. For 1957, Commissioner Brownell is including in the Office budget some 3 million dollars for co-operative research and this has been approved by Secretary Hobby. School boards should be concerned that this item stays in the budget as it passes under review by the Bureau of the Budget, the President's advisers, the President, and the Congress.

Finally, it is this writer's personal conviction that the U. S. Office of Education has never been recognized and supported anything like the degree to which its potential contribution to the welfare of our nation warrants. As so often happens in the field of education at every level, the Office has been treated like a stepchild, given little doles and handouts, subjected to the uncertainties of partisan politics, and loaded with responsibilities for a lot of services without corresponding funds to carry them out. It is time for a new era of understanding and support. This first meeting between the Office staff and the leaders of the National School Boards Association may be the beginning of that new era.

AS FUEL BUYERS, YOU PAY FOR BTU's

One BTU is equal to the amount of heat required to raise the temperature of one pound of water one degree Fahrenheit. One ton of coal contains 26,200,000* of these latent heat energy units . . . but *latent* means that this potent source must be *developed*.

If it's not developed—if smoke and soot occur, or fuel bed condition results in waste of combustible material—costly heat losses are sustained.

...GET MORE WITH WILL-BURT STOKERS

HOPPER MODEL STOKERS —open or closed hoppers. Coal burning capacities range from 20 through 750 lbs. per hour.

Will-Burt Automatic, Air-Controlled Stokers assure complete, efficient combustion, not only during operating periods, but during critical "off" periods as well.

You get the BTU's you pay for with a Will-Burt Stoker.

BIN-FED STOKERS—for the same fuel capacity range as hopper models. Automatic Air Control feature included.

Write for manual showing suggested stoker installations and specifications.

*Reference: Bituminous Coal Institute

The WILL-BURT Company

OUR TWENTY-SIXTH YEAR IN THE STOKER BUSINESS

P. O. BOX 904, ORRVILLE, OHIO

NEGAUNEE DIAMOND JUBILEE

The public schools of Negaunee, Mich., will have set a new pattern in the way of commemorating the history of the high school when thousands of alumni come from all parts of the country to celebrate the Diamond Jubilee the week of July 5 to 10.

A kickoff banquet, sponsored by the Negaunee school board, is expected to attract 150 persons, among whom will be school board members, city council members, college presidents, members of the Diamond Jubilee committee, neighboring school superintendents, and county school board members. Walter Gries of the State Board of Education will act as toastmaster. Dr. Guy Hill, of Michigan State College, will give an address on "Education 2000 A.D."

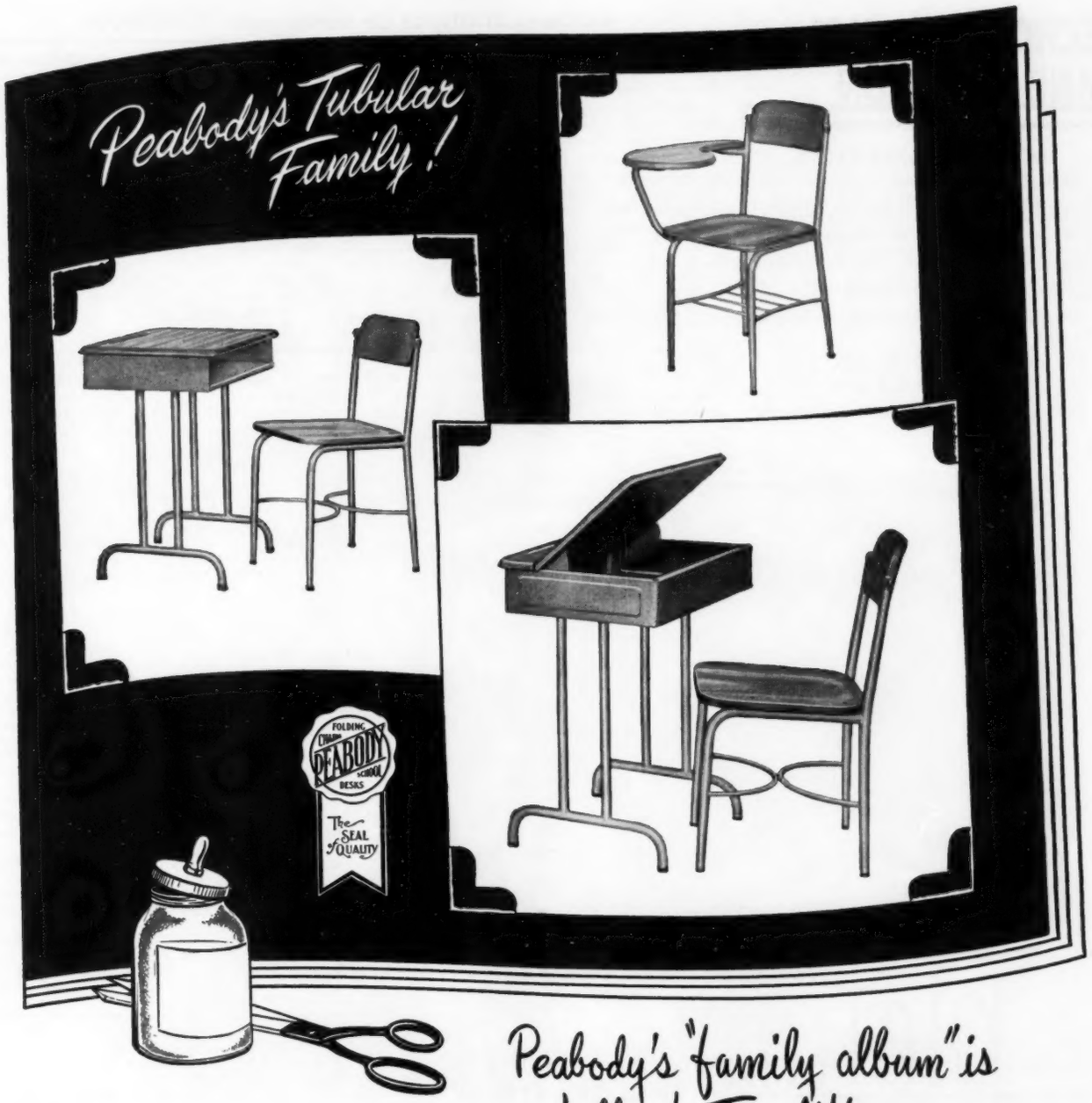
Supt. E. W. Born and his board have been heartily commended by the community for their untiring efforts and for the fine manner in which the week's program has been planned.

SCHOOL FINANCE

NATIONAL STATISTICS OF IMPORTANCE TO SCHOOLS*

OWENS-ILLINOIS GLASS BLOCK
AN (I) PRODUCT

OWENS-ILLINOIS
GENERAL OFFICES • TOLEDO 1, OHIO



Peabody's "family album" is full of Tradition----

Peabody is proud of the tradition established through over fifty years of successfully filling the needs of classrooms all over America. This tradition has meant a never ending parade of Peabody furniture to meet every classroom need. You can be sure that in each new Peabody product this experience will mean satisfaction. Anticipation of future needs, too, is a never ending goal here at Peabody.

PEABODY *No One Ever Regretted Buying Quality*

NORTH MANCHESTER, INDIANA

NATIONAL SCHOOL SERVICE INSTITUTE • SERVICE TO THE SCHOOL CHILDREN •

SCHOOL FINANCE AND TAXATION

SCHOOL BOND SALES

During the month of May, 1955, permanent school bonds were sold, in the amount of $110,892,930. The largest sales were made in:

California	$11,653,000	Massachusetts	$ 8,025,000
Connecticut	4,120,000	Minnesota	4,934,000
Illinois	11,287,000	Montana	6,491,000
Indiana	10,264,000	New York	12,141,000
Iowa	4,108,000	Tennessee	6,670,000

As of June 23, the average yield of 20 bonds was 2.41 per cent.

SCHOOL BUILDING CONSTRUCTION

During the month of June, contracts were let in 11 Pacific Coast states, for 117 school buildings, to cost $46,438,763. Further projects in the number of 154 were reported in preliminary stages, at an estimated evaluation of $92,739,631.

Dodge reported contracts let in June, 1955, for 960 buildings in 37 Eastern States at a contract value of $180,928,000.

NATIONAL STATISTICS OF IMPORTANCE TO SCHOOLS*

Item	*Date*	*Latest Figure*	*Previous Mo.*
School Building Construction[1]	June, 1955	$180,928,000	$200,765,000
School Building Construction[2]	June, 1955	46,438,763	29,415,060
Total School Bond Sales[3]	May, 1955	110,892,930	158,035,482
Latest Price, Twenty Bonds[3]	June 23	2.41%	2.37%
New Construction Expenditures[4]	May, 1955	243,000,000	231,000,000
Construction Cost Index[5]	June, 1955	604	602
Educational Building Permits, Valuation[4]	Mar., 1955	127,300,000	77,400,000
Wholesale Price Index[6]	June 21	110.3	110.3
U. S. Consumer's Prices[6]	May, 1955	114.2	114.2
Total Population of the U. S.[7]	May 1, 1955	164,799,000	164,595,000

*Compiled July 7, 1955.
[1]Dodge figures for 37 states east of Rocky Mts.
[2]11 states west of Rocky Mts.
[3]Bond Buyer.
[4]Joint estimate, Depts. of Commerce & Labor.
[5]American Appraisal Co., Milwaukee.
[6]U. S. Dept. of Labor.
[7]U. S. Dept. of Commerce.

SCHOOL BONDS

★ St. Paul, Minn. Sold $2,200,000 in school bonds, due May 1, 1958.

★ Alpine, Utah. The school board has called for bids on $2,950,000 worth of school bonds.

★ Oak Park, Ill. A $7,000,000 bond issue referendum has been called by the elementary school board for construction purposes.

★ The school board of Las Vegas, Nev., has adopted a resolution calling for a $4,000,000 bond issue for construction purposes.

★ Opelousas, La. The school board of St. Landry parish has called an election to gain approval of a $4,500,000 bond issue.

★ Sioux Falls, S. Dak. A bond issue of $2,000,000 has been approved for new school projects. The money will be used to finance a new junior high school, an elementary school, and an addition to another school.

★ Blue Island, Ill. A $1,750,000 bond issue has been defeated by the voters.

★ Santa Clara, Calif. A bond issue of $3,000,000 has been carried by the voters. The money will finance a new union high school and the remodeling of the present building.

★ Sequoia, Calif. Voters have approved a bond issue of $3,975,000 for new school projects.

★ The voters of Torrance, Calif., have approved passage of a $10,000,000 bond issue to be used for constructing a new high school and several elementary schools, as well as for purchasing new school sites during the next two years.

★ Scotch Plains, N. J. Sold $2,600,000 of school bonds, at a bid of 100.025, for obligations bearing 2.95 per cent interest.

★ Fairfax county board at Alexandria, Va., will hold a referendum election in November for approval of $20,000,000 of school construction.

★ Wichita, Kans. Bonds totaling $3,740,000 will be sold by the school board.

★ The State Allocation Board at Sacramento, Calif., has approved $2,345,394 in state loans for new school construction in the Compton high school district.

★ Prince Georges County, Md., sold $6,000,000 in school bonds, at an interest cost of 2.765 per cent.

★ Rome, N. Y. State Comptroller Arthur Levitt has approved bond issue of $6,720,000 for new school construction.

★ Omaha, Neb. The Citizens Advisory Committee on Omaha Public Schools recommended that the school board float a bond issue to pay for new school buildings and abandon its present pay-as-you-go method of financing construction.

★ The trustees of Midland, Tex., school district have called election to vote $2,000,000 in school bonds for new school construction.

★ Gresham, Ore. School Dist. No. 1 voters approved a $2,040,000 bond issue to finance schools.

★ The board of education of Laramie, Wyo., has followed the practice of selling short term serial bonds at a low interest rate for several years. As a result of this practice, the present bonded indebtedness of the schools is about one third of the legal debt limit.

★ Knoxville, Tenn. County school bonds amounting to $3,485,000 were bought by Equitable Securities Corp. of Nashville and 18 associates at an average interest rate of 2.38 per cent and a gross interest cost of $1,015,112.50. The bonds will be retired over a 17-year period.

picture THIS BEAUTIFUL CHAIR IN YOUR NEW AUDITORIUM

modern streamlining . . . comfortable . . . luxurious . . . you can have all these necessary qualities for fine seating with Griggs Model 50 MBW auditorium chairs.

See your Griggs distributor or write direct for auditorium seating catalog.

Griggs EQUIPMENT COMPANY
BOX 630 • BELTON, TEXAS

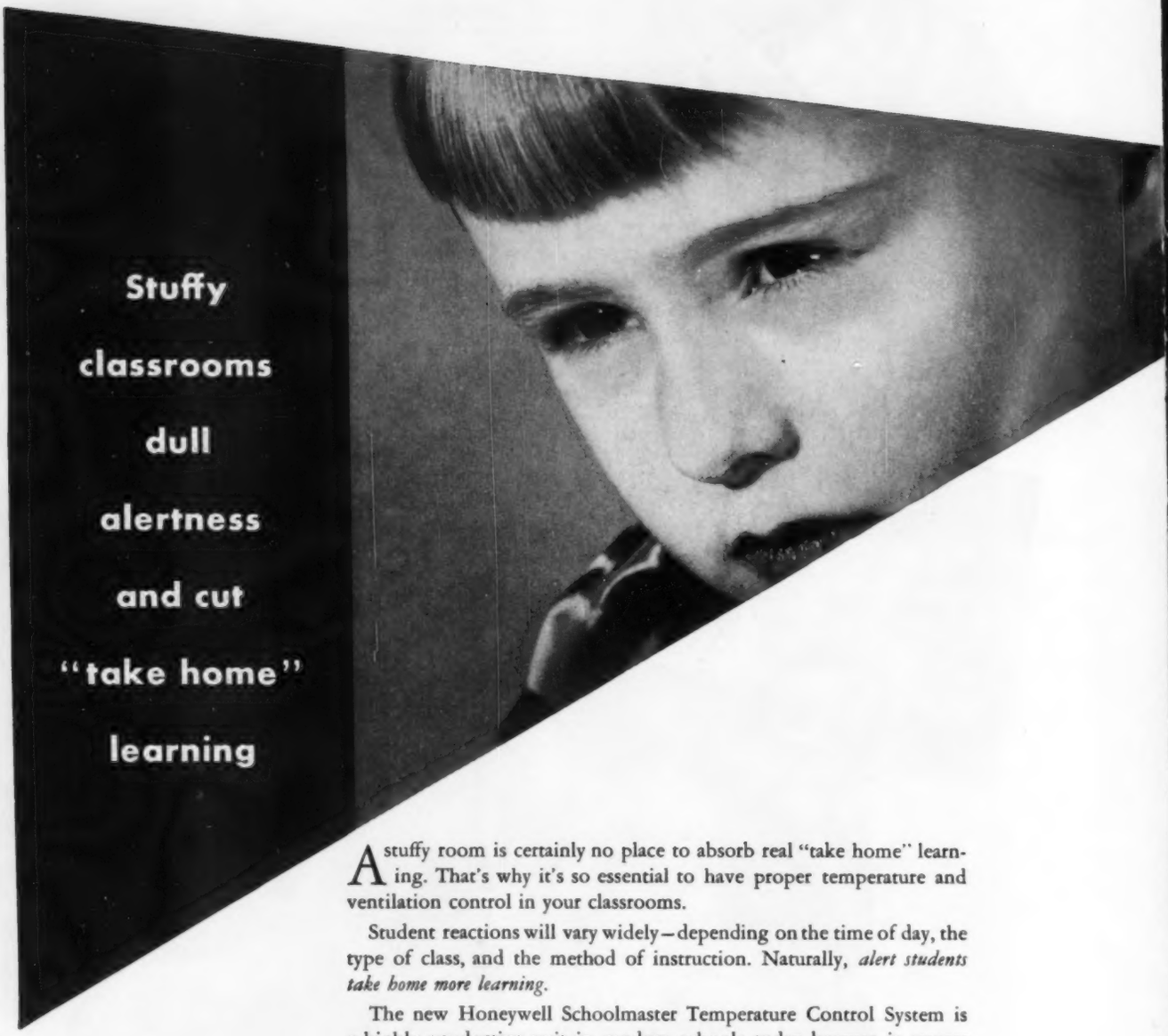
Contented guests

Having savored a serving of a Sexton preserve or jelly, it is not unusual for a guest to comment on it—even to ask where it may be obtained. No thin, syrupy mixture this but the fullbodied essence of the plump, ripe fruit, blended only with crystal cane sugar cooked to an elegant consistency. A trial assortment from the great variety of Sexton jams, jellies, and marmalades and fruit butters will be an education in how so seemingly small a detail can mean so much in guest contentment.

Friendship House, Mississippi City, Miss.

Sexton Quality Foods

JOHN SEXTON & CO., CHICAGO, 1955



A stuffy room is certainly no place to absorb real "take home" learning. That's why it's so essential to have proper temperature and ventilation control in your classrooms.

Student reactions will vary widely—depending on the time of day, the type of class, and the method of instruction. Naturally, *alert students take home more learning.*

The new Honeywell Schoolmaster Temperature Control System is a highly productive unit in modern schools today because it assures the proper conditions for classroom alertness.

This Schoolmaster System includes a newly developed school thermostat for each classroom, plus an indicator panel for the principal's office which gives a finger tip report on all room temperatures.

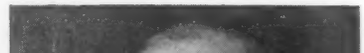
With it, you can accurately coordinate level temperatures, proper humidity and ventilation to create ideal conditions for brighter classes, and better learning.

The Schoolmaster is an exclusive Honeywell feature. It's designed for *any* school, whether it's a new or older building. No major building alterations are necessary, as the wiring is simple.

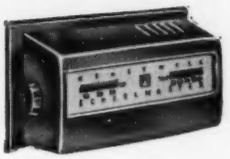
For complete information, call your local Honeywell office, or write to Honeywell, Dept. AJ-8-34, Minneapolis 8, Minnesota.

NEW Arlington

DUKE UNIVERSITY'S 1955
SCHOOL LAW CONFERENCE



New Honeywell Schoolmaster System makes temperature and ventilation control a "productive" item



A thermostat in each room makes temperature and ventilation control a part of teaching. The Honeywell individual classroom thermostat is *custom designed* for the instructor so that room temperature and ventilation can be matched to class activities.

An indicator panel gives the principal a finger tip report. The panel shown here is for the principal's office and is wired to a special sensing element in the thermostat for each room. The principal can have a push-button temperature reading *for any classroom.*

Special sensing elements provide added fire safety. You have a constant fire sentry in the Honeywell Schoolmaster System, in addition to your regular fire protection system. You have fire sensing elements in each room, and in closets and store rooms, if you wish. These elements are wired to the principal's panel to help detect fires.

MINNEAPOLIS
Honeywell

School Temperature Controls

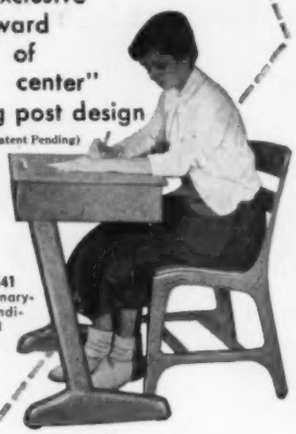
112 OFFICES ACROSS THE NATION

H HONEYWELL

NEW Arlington

Individual table desks with exclusive "forward of center" slanting post design

(Patent Pending)



No. 841 Stationary-Top Individual Table Desk

So much more leg room

No. 851 Lift-Top Individual Table Desk

More leg room, less chair movement, easier entrance and departure . . . all made possible by Arlington's unique "forward-of-center" slanting post design. And, you'll find that Arlington Table Desks are more rigid and durable than standard designs. Available in four desk heights, with or without inkwells.

Write for your free copy of Arlington Catalog No. 55 . . . complete information on Arlington desks, tables and chairs for every classroom need.

Arlington seating company

ARLINGTON HEIGHTS, ILLINOIS

. . . a dependable source of quality seating equipment for over 50 years

DUKE UNIVERSITY'S 1955 SCHOOL LAW CONFERENCE

The second annual School Law Conference, acclaimed by many as one of the most significant, timely, and beneficial meetings dealing with public school administration, was held at Duke University, June 21–22. Over 300 delegates, or double last year's attendance, were on hand.

The topic for the first general session was "Current Legal Problems in School Administration." In an address on the "National-State Perspective," Edgar Fuller, executive secretary of the National Council of Chief State School Officers, emphasized that federal-state relations should be on a sound professional basis to assure proper administration of federal-state educational programs.

In the accompanying address on "State-Local Perspective," Charles Carroll, North Carolina State Superintendent of Public Instruction, took cognizance of the school administrator's role as a state officer subject to the laws enacted by the legislature and the interpretations of the Courts.

The afternoon session of the first day was devoted to group discussions on "Legal Problems of School Administration." Four different groups, each with a superintendent of schools as a discussion leader, dealt with legal aspects of school finance, school property, staff personnel, and pupil personnel respectively. Among the consultants for the various discussion groups were such prominent national authorities on school law as Professors Newton Edwards, Edgar Fuller, Lee O. Garber, Warren E. Gauerke, Robert Kramer, Harold H. Punke, Madaline Kinter Remmlein, and E. Edmund Reutter.

"Desegregation of the Races in the Public Schools" was the featured topic for the third general session. In discussing the "Legal Implications," Dean Jefferson Fordham of the School of Law, University of Pennsylvania, gave enlightenment as to how the legal machinery would operate in the implementation of the U. S. Court's recent rulings. "Administrative Implications" were presented by Superintendent John H. Fischer, Baltimore City Schools. Dr. Fischer's objective account of events in his own school system, which was successfully making the adjustment, held the close attention of school administrators who are concerned with the practical aspects of the problem.

"Where Do We Go From Here?" was the theme of a panel discussion at the final session. Professor Robert Kramer of the Duke Law School served as moderator while Dean Fordham and Superintendent Fischer acted as consultants. Four school administrators from North Carolina presented views on "next steps." Although they were in agreement that the law must be obeyed, there was some variation in opinion as to speed with which desegregation should be attempted. More divergent opinions were expressed from the floor — ranging from immediate compliance to downright defiance. The most prevalent attitude expressed by those attending the conference, however, was to adopt a policy of "gradualism" within the framework of law and with a sympathetic consideration of local factors which vary from community to community. — E. C. Bolmeier.

BUSINESS OFFICIALS SECURE JOHNSON FOR CHICAGO CONVENTION

Dr. Walter Johnson, head of the History Department at The University of Chicago, has been secured as the speaker for the Monday morning opening session of the 41st Annual Convention of the Association of School Business Officials of the United States and Canada, to be held in Chicago's Hotel Sherman, October 16–20. Writer, lecturer, and globe trotter, Dr. Johnson is the author of many articles and books. He will be remembered for his work on *William Allen White's America*, and *Roosevelt and the Russians: The Yalta Conference*. He may be remembered for accompanying Adlai Stevenson on his around-the-world tour. Dr. Johnson will deliver an informative address on world affairs.

CHARLES A. UPSON RETIRES

Charles A. Upson, a member of the Lockport, N. Y., board of education for 36 years, has announced his retirement effective July, 1955.

Between the years of 1946 and 1950, he was president of the Lockport board of education, while preceding and following that period he has been chairman of its building committee.

In recognition of Mr. Upson's long service, a new elementary school in the city of Lockport has been named the Charles A. Upson Elementary School.

Shortly after joining the board of education in 1919, Mr. Upson spearheaded a program to replace old and inadequate school buildings. With the completion of a new high school and a new elementary school now under construction, all schools existing when Mr. Upson was elected to the board in 1919 will have been replaced with modern structures.

Mr. Upson served as a member of the New York State Commission on School Buildings from its inception until it was disbanded last year. He has always been interested in the activities of the New York State Boards Association and received a citation from them in 1923.

Foremost in the program that saw the establishment of a Public Library with its own building, Mr. Upson has long been a leader in community activities. He has had a distinguished career in industry and banking, an inventor who holds many patents in the wallboard industry, and is a member of fraternal organizations.

Through the years, Mr. Upson has been a consistent supporter of good schools, and has been mainly responsible for the modern school plants that exist today in the city of Lockport.

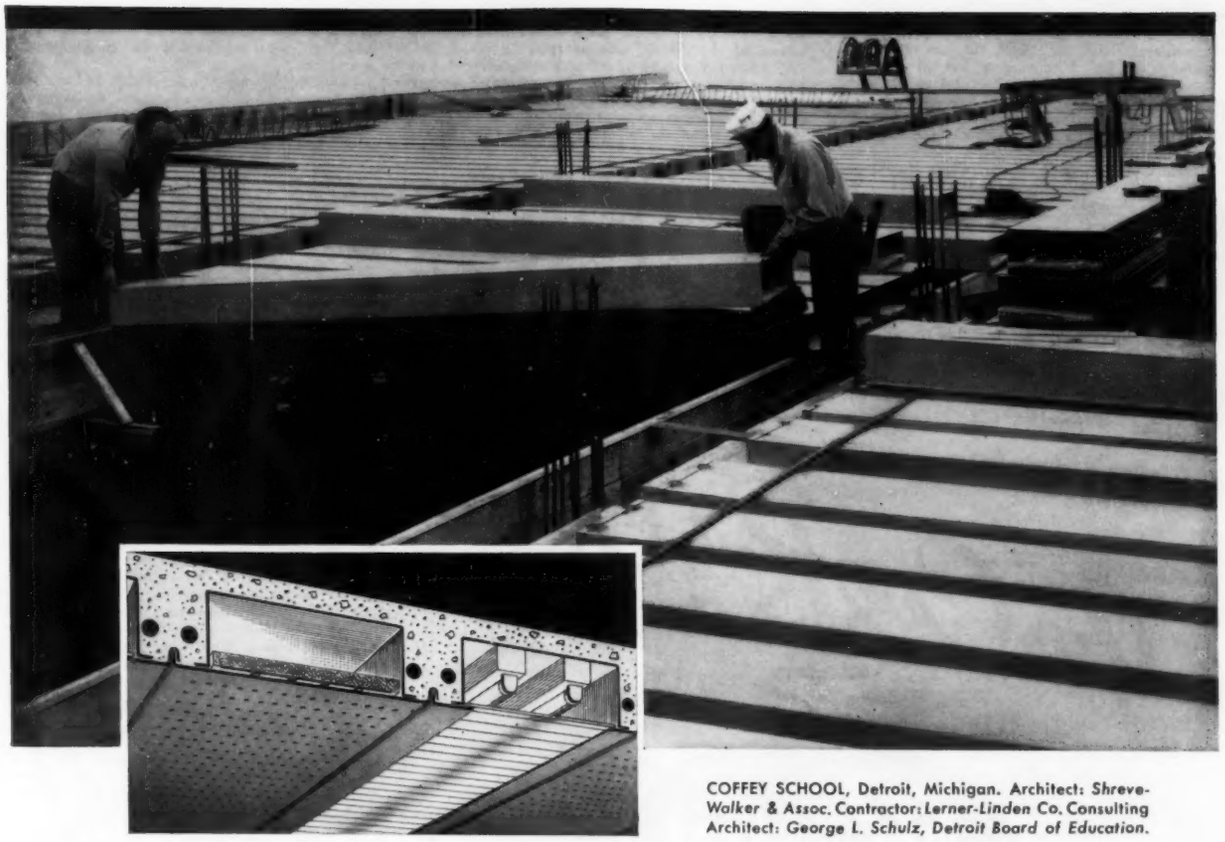
HONOR SUPT. HATTON

The school staff, the board of education, and citizens of Akron, Ohio, joined recently in a testimonial dinner to Supt. Otis C. Hatton, who is retiring from his office. As a gift from his well-wishers, Mr. Hatton was presented with tickets for a Caribbean cruise for himself and his wife.

NEW FEDERAL AID BILL

education. The General Assembly adopted a resolution

the nation, the meeting considered the best ways to



COFFEY SCHOOL, Detroit, Michigan. Architect: *Shreve-Walker & Assoc.* Contractor: *Lerner-Linden Co.* Consulting Architect: *George L. Schulz, Detroit Board of Education.*

NEW WAY TO BUILD SCHOOLS . . . FASTER!

Fenestra TROFFER-ACOUSTICAL Panels combine concrete joist forms, built-in acoustical ceilings and recessed lighting troffers

Now you can have better-looking, better-lighted classrooms with fireproof construction and save both time and money. The NEW Fenestra* Troffer-Acoustical Panels—TAC Panels, for short—are designed to wrap up 3 expensive building materials in *one* economical, quickly erected building unit. They permit you to have acoustical treatment and recessed lighting—features that usually require extra time and labor—*built right in the structure itself!*

Here's how it works. As you can see in the photo above, the TAC Panels—either for troffer lighting or metal pan acoustical ceilings—are long-span units. Placed in position on the formwork for the main beams, they provide the forms for the concrete joists and floor slabs. Temporary supports at mid-span while pouring concrete are *all* the additional shoring required. After the concrete is cured, the panels *stay in place* and function as the finished ceiling—complete with built-in acoustical treatment—and as lighting troffers. Only painting and lighting fixture installation are needed to complete the room.

And TAC Panel ceilings are easier to maintain year after year. They can be washed or repainted as often as needed, without affecting the acoustical treatment. There is no hanging ceiling or "stuck on" acoustical material to be damaged or replaced.

Even if your plans are now on the drawing board, they can easily be adapted to use Fenestra TAC Panels. Ask your architect to investigate this new building method, now, or write for a copy of *Fenestra TAC Panel System* that gives you complete details. Detroit Steel Products Co., Dept. AS-8, 2256 E. Grand Blvd., Detroit 11, Michigan. *Trademark

Fenestra TAC TROFFER-ACOUSTICAL BUILDING PANELS

Patents applied for

Architectural, Residential and Industrial Windows • Metal Building Panels
Electrifloor† • Roof Deck • Hollow Metal Swing and Slide Doors

†℠

NEW FEDERAL AID BILL

Honorable Stewart L. Udall, of the House of Representatives, has introduced a bill in Congress, which is intended to provide federal aid to all school districts which are carrying out, or are ready to carry out, school integration programs. Under its terms, the Federal Government would construct outright new facilities needed by such districts to reorganize and unify their school systems. The legislation incorporates and puts to use the well-tested "federal impact" principle which is embedded in the policies of the country and the Congress.

The bill is intended to relieve the serious burdens imposed on some school systems for new capital expenditures by the turn of events brought on by the recent court decision on segregation.

NEW SCHOOL CODE

North Carolina has enacted a new school code and has set up machinery for the enrollment of children in the schools by county and city boards of education. The General Assembly adopted a resolution stating the policy of the state with reference to the mixing of children of different races in the schools, and enacted a number of other state and local laws. The new code includes a number of major changes from the old law. Increased appropriations for support of a nine months' term are to take care of anticipated increased enrollments in the schools during the two years ahead.

NEA GROUP TO AID SCHOOL PLANNERS

"How can the school planner be sure he's getting his education dollar's worth in the schools he builds?" was the question posed at a conference sponsored by the Department of Audio-Visual Instruction of the National Education Association. The conference was held Friday, July 1, 1955, at the Conrad Hilton Hotel in Chicago, Ill.

Attended by school administrators and architects, as well as representatives of commercial organizations in the school building and equipment field from across the nation, the meeting considered the best ways to inform schoolhouse planners as to what school facilities and equipment are needed for good instruction in new schools.

In opening remarks, Lyle Ashby, assistant secretary for Educational Services, National Education Association, answered briefly but conclusively the question "Why This Conference?" The keynote address was delivered by Paul Misner, superintendent of schools, Glencoe, Ill. He warned the conferees of "today problems: our new obsolete schools," introducing a symposium's consideration of the urgent problems involved in making sure that the best educational "know-how" about instructional needs will be reflected in new school construction. Speakers on the symposium included an architect, a school building consultant, a curriculum supervisor, and a state department of education school house planner.

Immediately after luncheon, a round-table discussion, introduced by A. J. Foy Cross, Professor of Education, New York University, brought out what groups must be reached with this information about school facilities. "Get to the school boards," was the advice of A. R. Page, assistant superintendent, state of Wisconsin. This group, with its "one level above grass roots" appeal, together with architects, superintendents, and PTA organizations, were designated as the main targets of the program.

Small work groups under a leader and some consultants then considered definite proposals for this nationwide program of information dissemination, reporting their recommendations to a general session during the last hour. Projects such as a motion picture for the general audience, filmstrips of existing model classrooms for architects and other school planners, brochures, state conferences, and special architect awards were among the suggestions favorably received.

Zepyrin Marsh, director of School Relations, Minneapolis-Honeywell Regulator Company, was the general chairman of the final discussion.

PERSONAL NEWS OF SUPERINTENDENTS

★ The board of education of Kansas City, Mo., has voted not to renew the contract of Supt. Mark W. Bill. The local teachers' association has requested the NEA to investigate the situation.

★ Dr. Will Clark Crawford, superintendent of schools in San Diego, Calif., for twenty years, died May 30 after a brief illness. Dr. Crawford served as superintendent from 1934 to 1954, and after retirement served as a member of the Department of Education at the University of California in Los Angeles.

★ Douglas V. Olds has succeeded Dr. Paul A. Menegat as superintendent of schools in Forest Grove, Ore. Dr. Menegat has accepted the position of superintendent of the American Air Force schools in Madrid, Spain, where the Air Force has established bases. The schools are attended by dependent children of American Defense Forces.

★ The board of education at Berkeley, Calif., appointed Dr. Thomas L. Nelson superintendent of schools to another four-year term with a $2,000 annual increase in salary. Dr. Nelson has held the superintendent position at Berkeley for the past 10 years.

★ Charles R. Hansard has been re-elected as Superintendent of Schools at Farmington, Ark. He will begin his fourth year of service with an increase of $600 in salary.

★ H. E. Stahl, superintendent of Claymont, Del., schools for the past 33 years, announced his retirement. A member of the teaching profession for 47 years, Mr. Stahl is a charter member and past president of the Delaware Association of School Administrators and the Delaware State Education Association. He will be succeeded in the Claymont post by Robert L. Durkee.

★ The new superintendent of schools of Felton, Minn., is Alvin L. Arneson, former school head at Sanish and Leeds, N. Dak. He replaces C. J. Lommen who recently resigned.

PERSONAL NEWS OF SCHOOL BOARDS

★ The Milwaukee board of school directors has elected as its president for 1955–56, George Hampel, Jr., a veteran member. Newly elected directors who have taken office are Mrs. Ramond Pfeiffer, Mrs. Mildred McNally, and Thomas Brennan.

★ Montpelier, Ind. The recently consolidated Montpelier-Harrison township school system has elected an eight-member board. The members are Dr. Gordon F. McKean, H. L. Kelley, Frank Johnson, Walter Rogers, Robert Baker, Harry Beymer, Alva Clements, John Evans, Paul Hornbaker, Robert Schwartzkopf, and Myron Whybrew.

★ Wilson Bickford is the new president of the school board at Weeping Water, Neb.

You Can Rely On...

Brulin

Consistently . . .
THE FINEST
IN MAINTENANCE
PRODUCTS

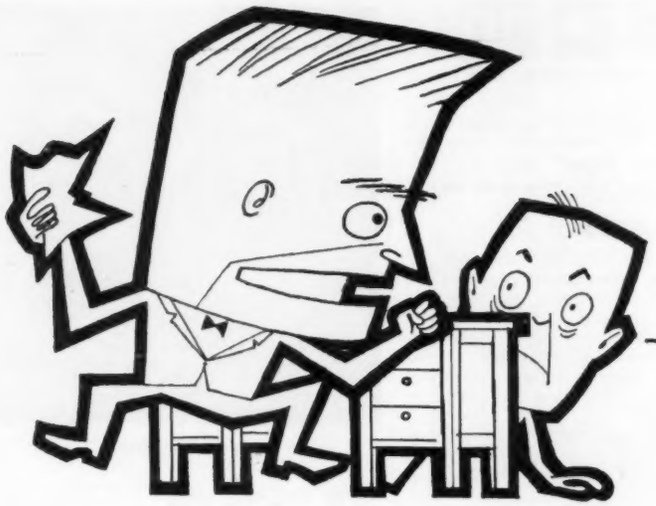
Here are two of Brulin's famous maintenance products:

★ OCTO-SOLVE
(TRADEMARK REG.)
The original rapid cleaning compound. A superior liquid concentrate preferred nation-wide for all general cleaning work.

★ SUPER-WAX
Brulin's Super Wax is an *all*-carnauba floor wax, containing only the highest quality No. 1 yellow Parnahyba. You can pay more for floor wax, but none will produce a finer, longer wearing finish than Super Wax.

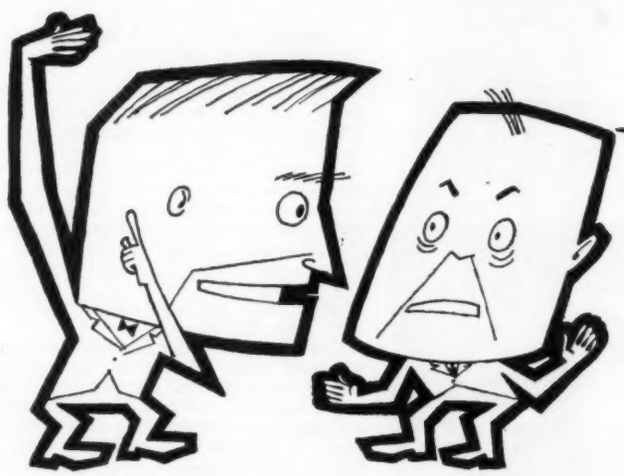
There's a Brulin Representative near you.

BRULIN & COMPANY, inc.
2946 Columbia Ave. • Indianapolis 7, Ind.
1793 12th Street • Oakland 7, California



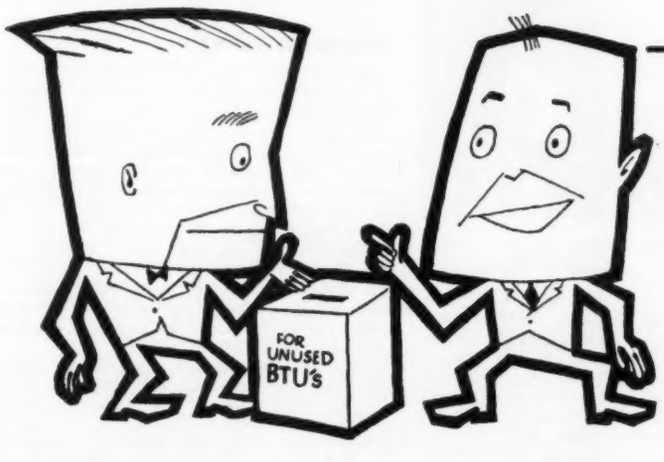
Fire the fireman! Here's another smoke summons.

Don't fire the fireman, he's doing his best. Let us look for a more adaptable coal.



What's wrong with the coal? It's high in BTU's.

Sure, it's a good coal—in the right furnace—but our set-up just can't supply enough air to burn all of the hydrocarbons before they cool off and blow up the chimney as free carbon.



There's no sense in buying BTU's we can't burn, is there?

You've got a point there—and one that so many people are never aware of. It isn't only what's in the coal that counts—it's what you can get out of it under your own set of conditions. That's why picking the right coal is a job for a competent combustion engineer. The superior quality coal produced at mines served by the Chesapeake and Ohio will meet our most exacting requirements. Before we sign another coal contract, let's get in touch with coal producers on the C&O or a C&O coal man to give us the facts and figures on which coal will cost us least in the long run.

P.S.

There's a lot more to buying coal than the cost per ton. For facts and figures to solve your particular fuel requirements, write to: R. C. Riedinger, General Coal Traffic Manager, Chesapeake & Ohio Railway Company, Terminal Tower, Cleveland 1, Ohio.

Chesapeake and Ohio Railway

WORLD'S LARGEST CARRIER OF BITUMINOUS COAL

News of Products for the Schools

Classroom Storage

MODERN CABINETS

The need for more stimulating, colorful, and workable study rooms has prompted the design of a new line of school and library cabinets by the Brunswick-Balke-Collender Company, Chicago. Greater flexibility in the classroom is now afforded because of complete mobility and the use of standardized dimensions, parts, and finishes. All cabinets have a sage gray finish except for hardboard sliding doors finished in coral, blue, and yellow pastel colors.

The cabinets may function as room dividers, mobile cabinets, supplementary work surfaces, and may also be used in reception rooms and offices. There is a choice of open shelves or doors, full or divided shelves, on four mountings — casters, legs, solid bases, or wall mountings. With the use of only a screw driver, the cabinets can be assembled into a variety of good storage and shelving arrangements, quickly and easily. Top surfaces are coated with a melamine plastic protective.

(For Further Details Circle Index Code 085)

NEW SMITH-CORONA

National distribution of the new model Smith-Corona Electric Typewriter has just been completed, according to Smith-Corona, Inc., Syracuse, N. Y. The new machine features complete Keyboard Control, with more controls in the keyboard area than any other electric typewriter, contributing to increased speed as well as ease of operation.

Other features responsible for increased speed are an exclusive speed booster which accelerates the return of the typebar and a slanted keyboard and keytop slope that conform to the natural movements of the fingers. Additional points are an 88 character keyboard, four more than standard, available at no additional cost; automatic repeat action on any or all keys; power shut-off when the cover plate is raised; and a Page Gage which indicates how far the operator is from the bottom of the typed page.

(For Further Details Circle Index Code 086)

Electric Model

NON-SKID COATING

A new semiplastic Non-Skid Coating for stairs, steel floor plates, ramps, inclines, shower and locker room floors, has been announced by The Garland Company, Cleveland. The Coating is applied with a trowel on wood, metal, or concrete. According to the manufacturer, its abrasive surface eliminates falling, slipping and injuries on stairs, wet or slippery floors.

Semiplastic Non-Skid Coating is formulated with chlorinated rubber for extra adhesion and flexibility. It is acid, alkali, and grease resistant and will stand continual scrubbing and washing. Because the coating is made in four colors, it will find various uses in school hall and stairways, cafeterias, auditoriums, and gymnasiums.

(For Further Details Circle Index Code 087)

MELAMINE DINNERWARE

The recent addition of attractive, new patterns and designs to tough, unbreakable Melamine plastic dinnerware make dishes of this compound a good buy for schools because of its economy, quietness, and light weight.

Simple Styling

In home-economics work, school lunchrooms and general institutional uses, dishes of Melamine are practically indestructible and offer a smooth, nonporous surface that resists chipping, scratching, and cracking due to rough handling or sudden heat shock.

According to tests announced by Barrett Division of the Allied Chemical and Dye Corp., New York City, makers of the compound, Melamine dinnerware offers relatively the same cleansing qualities as other types of materials ordinarily used for dishes. With the use of alkaline bleaches and proper dishwashing techniques, even staining, formerly a disadvantage of plastic dinnerware, can be held to an acceptable minimum.

(For Further Details Circle Index Code 088)

Study-Top Unit

NEW KUEHNE LINE

A line of modern, tubular steel school furniture was introduced recently by the Kuehne Company, Mattoon, Ill., a large manufacturer in tubular steel equipment, but new in the school field.

The new Kuehne school furniture line is being produced in three durable, colorful finishes: spring green, metallic-mist gray, and nonreflecting satin chrome — and will offer wide choice of units from stacking chair to teacher's single- and double-pedestal desks.

All writing surfaces are made of 11-ply hardwood protected with General Electric's Textolite plastic. Proper posture is insured by a five-degree pitch on the backs of all chairs and a three-degree pitch on the seats. Self-leveling glides eliminate tipping and provide easy, silent movement.

The Study-Top Combination, pictured, is equipped with six legs to give maximum strength and rigidity, providing easy under-access for cleaning. The chair has molded seat and back of northern plywood. The metal main structure is made of heavy gauge steel tubing, and the desk top measures 18 inches by 24 inches.

(For Further Details Circle Index Code 089)

FLOOR PATTERNS

Pan-O-Ramic patterns, recently introduced by American-Olean Tile Company, Lansdale, Pa., represent a new concept in the adaptation and use of ceramics, offering new freedom in design in keeping with the latest architectural trends. Although the Pan-O-Ramic patterns were developed especially to add interest and individuality to large areas, they are also suitable for use in moderate size rooms.

Pan-O-Ramic patterns are composed of various size tiles and are available in a number of different color combinations to suit the color scheme desired. Thirty-one different porcelain type colors, and 14 natural clay type colors can be used.

All patterns are factory assembled on standard size sheets, assuring easy installation by the tile contractor. These tiles are proof against any indentation from heavy furniture or equipment. They will withstand extremely heavy traffic and exposure to the elements, when used outside.

(For Further Details Circle Index Code 090)

FOR FLOOR MAINTENANCE

Three to four times faster operation than with floor machines of comparable size, is said to result from the use of the new Ten-

(Continued on page 64)

News of Products

BUILDING PROGRAM

(Concluded from page 21)

Among the problems that face Dr. Willis and his associates are some vital ones. In addition to the rapid increase at the elementary level, an additional 12,600 students are expected to be enrolled in the Chicago high schools by 1959; there will be a primary need for new buildings in areas where secondary schools are now nonexistent. A portion of the new bond issue must provide secondary schools in these sections of the city. Total enrollment in the elementary and high schools' survey reveals an increase annually of 11,000 pupils. Vocational educational buildings convenient to all parts of the city are imperative. Several other high schools are listed to receive rehabilitation treatment under the 1955 building bond issue.

The program also contemplates due consideration to Chicago public schools which offer services in the way of education to handicapped, less gifted, and partially retarded boys and girls of Chicago.

STATE PUBLIC EDUCATION

(Concluded from page 24)

trend first reported by T. M. Stinnett that in 1949–50 teachers colleges accounted for only 21.9 per cent of the total number of teachers prepared, 37.4 per cent coming from public colleges and universities, and 35.8 per cent from private ones.

Attributing the movement to convert state teachers colleges into state colleges in part to the rise in the number of college students to be served, the forthcoming Office of Education survey declares: "Legislatures were quick to observe that state teachers colleges had buildings and grounds and a going organization, and were well located in the state to serve the population generally. They saw that these institutions could be converted economically, efficiently, and quickly to state colleges offering a wide range of courses to meet the needs of the growing population."

The conversion of state teachers colleges to state colleges involved not only a change in name, but a change in the scope of the offerings of the institutions. In general, these state colleges still provide for the preparation of teachers. In addition, they offer liberal arts courses and grant liberal arts degrees, and in some cases provide instruction the vocations. The newly formed state colleges often provide offerings which are similar, or nearly identical, to those of other state collegss and universities which never were normal schools or teachers colleges.

BOARD AS LEADER

(Concluded fom page 26)

munity, and with a sense of their larger responsibility to American schools as a most important instrument for the preservation of American democracy, cannot fail to find limitless opportunity for leadership, nor to seize such opportunity when they find it. One need not be an educator by professional training to be a leader in education.

Hundreds of school boards have shown — are constantly showing — themselves to be leaders. The community whose educational program is headed by such a school board can consider itself fortunate.

NORTHWESTERN University

EVANSTON CAMPUS . . . CHICAGO CAMPUS

By using the Electro Silv-A-King "SKYLOUVER" in Chicago and the "20/20" fixture in their Evanston school, they were able to reduce maintenance costs and achieve an attractive uniformity in appearance regardless of location or mounting arrangement . . . and, at the same time, provide the correct level of comfortable, glare-free illumination for the various seeing tasks in every type of room.

LECTURE ROOM—EVANSTON Six rows of 4-ft. 2 light "20/20" units, single stem mounted on 4-ft. centers maintain 90 foot candles. Louvers are spaced equi-distant for more attractive appearance.

LIBRARY—DOWNTOWN This walnut paneled library seats 300 people. Ninety-six, thin 4-lamp "SKYLOUVER" units, with translucent styrene louvers, deliver 60 footcandles of "just like daylight" illumination.

Electro-Silv-A-King fixtures are also used in offices, laboratories, television studios, corridors, etc., in various buildings on both the Evanston and Chicago campuses.

Architects: Holabird, Root & Burgee, Chicago • Distributors: Revere Elec. Supply, Chicago • Engelwood Elec. Supply Co., Chicago • Chicago Elec. Supply Co., Chicago • Contractors: Electrical Contractors, Chicago; Hubble Elec. Co., Evanston • Edwards Elec. Co., Chicago.

Electro Silv-A-King . . . for your school lighting

Because the Electro-Silv-A-King line offers an unprecedented variety of fine quality fixtures now being used in many of the nation's outstanding schools. There is one that will meet your every requirement for performance, appearance and value.

Write today for your free Specification and Data Catalog illustrating and describing the complete line.

Electro Silv-A-King Corporation

1535 S. Paulina St., Chicago 8, Illinois
Spruce & Water Sts., Reading, Pennsylvania

DESIGNERS AND MANUFACTURERS OF THE FINEST IN LIGHTING

Here's the Key to Gym Problems!

Showing area-use flexibility made possible by FoldeR-Way Partitions in gymnasium and auditorium installations.

fully automatic

FoldeR-Way partitions

Did you know that you can quickly *and automatically* transform one gymnasium into two? Or that you can just as easily convert it to a large auditorium? You can . . . and just by turning a key . . . when you have R-W Fully Automatic FoldeR-Way Partitions!

Fully Automatic FoldeR-Way Partitions, designed and constructed to fit any size area, are electrically operated, opening and closing smoothly and silently at a turn of the switch key. Each partition section automatically locks firmly to the floor without bolts or tracks. Acoustically engineered and insulated sections are 3 inches thick to provide maximum "sound stifling effectiveness."

For greatest space flexibility, smooth and silent operation, and years of trouble-free performance, more and more architects and school boards are specifying R-W Fully Automatic FoldeR-Way Partitions. Write for Catalog A-99 and get complete details showing how FoldeR-Way can help solve *your* space problems.

75 YEARS of QUALITY and SERVICE by RICHARDS WILCOX AURORA, ILLINOIS

SLIDING DOOR HANGERS & TRACK • FIRE DOORS & FIXTURES • GARAGE DOORS & EQUIPMENT • INDUSTRIAL CONVEYORS & CRANES • SCHOOL WARDROBES & PARTITIONS

Richards-Wilcox Mfg. Co.
SCHOOL EQUIPMENT DIVISION
Branches in Principal Cities

510 W. THIRD STREET, AURORA, ILLINOIS

News of Products . . .

(Continued from page 62)

Model "E"

nant Model "E" Floor Maintenance Machine, manufactured by the G. H. Tennant Co., Minneapolis. Equipped with 21-inch wide cylindrical accessories, the machine is designed for buffing, rewaxing, polishing, or scrubbing hardwood and asphalt tile floors.

The machine is self-propelling, requiring no handle-pressure or special control. It weighs less than 90 lb., and is only 24 inches wide. A 3450 r.p.m. vacuum fan sucks dust and light soilage into a large machine to operate flush with walls and machinery; also permits cleaning well under desks and benches.

(For Further Details Circle Index Code 091)

FIBERGLAS FORM BOARD

Construction economy explains the wide acceptance of poured-in-place gypsum roof decks with Fiberglas acoustical form board, according to the manufacturer, Owens-Corning Fiberglas Corp., Toledo, Ohio, Economies are possible because the form board performs four basic functions. It serves as a permanent form for the deck, as an attractive interior ceiling and as acoustical and thermal insulation.

The firm points out that in most cases the complete poured deck consrtuction above the purlins may cost no more than a suspended acoustical ceiling alone. Probable cost is estimated at about 50 cents a square foot based on an installation of 25,000 square feet. This figure includes the gypsum deck, tees, mesh, and form board which is also the acoustical and thermal ceiling.

As a permanent form, the Fiberglas product is lightweight and easy to install by standard methods. The board will not rot or decay. It is dimensionally stable and the fibers are not affected by moisture; paint will not impair its noise-absorbing qualities.

(For Further Details Circle Index Code 092)

BOSTON RANGER 55

The new "Boston Ranger 55" pencil sharpener, manufactured by the C. Howard Hunt Pen Co., Camden, N. J., contains a new engineering feature, a positive point adjuster located conveniently on the outside of the crank handle. This permits the user to select fine, medium, or broad points by simply setting a dial. Old methods of point adjuster designs were located on carrier cutter assembly

(Continued on page 66)

News of Products . . .

CATALOGS & BOOKLETS

American Playground Device Co., Anderson, Ind.,

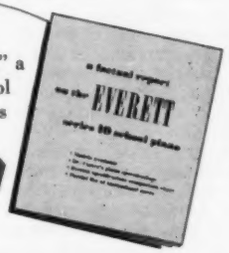
Use or abuse... EVERETT STANDS UP

From its "full cast" plate and hard maple pin plank to its double veneered case, every detail of this special piano is engineered for long, hard service. But that's not all. What is even more important is the beautiful tone of an Everett *Style 10*. Extra string length needed for full, resonant tone is provided by the 44-inch height. Full-size action and carefully selected 12 pound hammers permit unexcelled playing ease. Before you choose any school piano, investigate the Everett *Style 10* — choice of hundreds of schools. And . . . one of the lowest-priced.

Everett Piano Co., Div. of Meridan Corp., South Haven 8, Mich.

FACTS!

A copy of "Report 10," a factual rundown on school piano specifications, is yours on request.



America's most popular school piano!

Mitchell FOLD·O·LEG tables

UNEQUALED in APPEARANCE DURABILITY STRENGTH

USED IN CHURCHES, SCHOOLS, HOTELS, INSTITUTIONS, CLUBS, LODGES AND INDUSTRIAL PLANTS

Convert any room into a Banquet or Group Activity Room... Set up or clear in minutes

QUICKLY FOLD or UNFOLD for Changing Room Uses

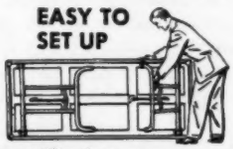
TOPS OF MASONITE PRESDWOOD, FIR & BIRCH PLYWOOD, LINOLEUM, RESILYTE PLASTICS

TUBULAR STEEL LEGS

MAXIMUM SEATING

MINIMUM STORAGE

EASY TO SET UP



Send for folder with complete specifications.

MITCHELL MANUFACTURING COMPANY
2738 S. 34TH STREET • MILWAUKEE 46, WIS.

THE STRONGEST, HANDIEST FOLDING TABLE MADE!

New DEMOUNTABLE CHAIR TRUCKS

For quick and easy folding chair storage

Store tubular or channel chairs—4 sizes to choose from

Strongly constructed, chan-angle frames, welded into one rigid lightweight mobile unit. Removable end arms and side rails permit multiple stacking of empty trucks. Roller bearing, rubber tired wheels with ball bearing swivels. Two models hold 50 tubular chairs or 75 channel chairs each—one vertically, one horizontally. Two other sizes available. Truck shown above is especially designed for under-stage storage.

New, larger seat tubular and channel steel chairs

Write for catalog of Krueger's complete line of tubular and channel steel folder chairs—priced to fit every budget. Newest models feature extra large seats and backrests for utmost comfort.

KRUEGER

METAL PRODUCTS • GREEN BAY • WISCONSIN

News of Products . . .

(Continued from page 64)

and required removal of receptacle and an inconvenient finger-smudging operation.

The Boston Ranger 55 also includes a stainless steel receptacle, strong double bearing engineering, and a deluxe finish.

(For Further Details Circle Index Code 093)

UNUSUAL NEW DESK

Not only a new design, but a new concept in movable classroom seating is built into the new Rota desk manufactured by Beckley-Cardy Company, Chicago. The Rota desk, because of its circular shape, successfully combines simplicity of line with stability, comfort, and convenience. The open circle design provides unrestricted foot room, and the Rota is extremely easy to sit in or get up from.

The writing top is a generous size which accomodates either left- or right-handed pupils. The curved plywood back and chair seat are shaped to correct posture standards. Tubular frame has electrically welded joints with box type adapter to hold writing top rigid. Books are easily available from the book rack below the seat.

Rota desks are available in three sizes: 14-, 16-, and 18-inch seat heights. All plywoods used have natural nongloss lacquer finish; metal parts are baked-on taupe enamel.

(For Further Details Circle Index Code 094)

CATALOGS & BOOKLETS

Complete details of the permanent protection given the records of The Ethyl Corporation, Detroit, Mich., through microfilming, is described in a 2-page folder recently released by Remington Rand Inc., New York. The microfilm program, developed by Remington Rand's Business Services Dept., guarantees against loss of records through fire, theft, flood, or destruction. Folder CH-998 is free, upon request.

(For Convenience Circle Index Code 095)

The Architectural Woodwork Institute, Chicago, has published a brochure titled "Cabinet Construction Data," presenting an outstanding group of details of custom-designed cabinet and casework some of which include classroom areas. The 20-page brochure has an outline of exclusive features afforded by custom-designed cabinet work. Available, free, to school planners.

(For Convenience Circle Index Code 096)

A new brochure describing and illustrating the Samsonite line of colorful, mobile school furniture designed by Russel Wright, is available now. Complete specifications lists are also included. Samsonite school furniture is manufactured by Shwayder Brothers, Inc., Detroit, Mich.

(For Convenience Circle Index Code 097)

The new 1955 catalog of Fenestra Architectural Division Products has been published by Detroit Steel Products Co., Detroit. The 40-page book shows the complete line of windows including projected, awning, casement, and combination windows, and others. Copies are available, free, on request.

(For Convenience Circle Index Code 098)

American Playground Device Co., Anderson, Ind., offers a new catalog with complete specifications on their approved lines of playground, park, picnic, and dressing room equipment. Available free, on request.

(For Convenience Circle Index Code 099)

A new forty-page booklet titled "Wakefield Lighting as Flexible as Your Classrooms" has been prepared for the Wakefield Company, Vermilion, Ohio, by Dr. Darell B. Harmon, an educational consultant. The first half deals with Dr. Harmon's report of experiences, beyond recognition of detail, from which communication and learning are derived in schools, and establishes criteria for judging a classroom's environment. Wakefield's "Photo-Metric" broad-area lighting development and its application to the problems presented is also included.

(For Convenience Circle Index Code 0100)

MANUFACTURER'S NEWS

Alexander F. Victor, founder of the **Victor Animatograph Corp.,** Davenport, Iowa, was recently honored by the Committee on Archives and History of the Department of Audio-Visual Instruction, National Education Association. The committee cited Victor for his services and contributions to the use of the motion picture in education. This was the first such award by D.A.V.I.

Howell G. Evans has announced his resignation as senior vice-president of **Hamilton Mfg. Company,** Two Rivers, Wis., effective July 15, for reasons of health. He will continue to serve the company as a director and consultant. Evans joined the company in 1923, has served as a sales executive since 1928 and as an officer since 1933.

HALF TONE and LINE ETCHINGS COLOR PROCESS

premier

The Finest in Black and White and Color Engraving

SERVICE • DEPENDABILITY

Call BRoadway 1-3337

premier engraving co.

818 W. Winnebago St. Milwaukee 5, Wis.

Informed Boards Serve Schools Best

It's a fact witnessed by nearly 14,000 school board members who read the *Journal* month after month. Informed school boards understand school problems better, are better qualified to make the important decisions that affect more than 30 million public school children of America.

If your school board is not reading the *Journal*, put it into their hands right now and watch how understanding combines with co-operation to solve school administrative problems.

WRITE FOR INFORMATION ABOUT SPECIAL SCHOOL BOARD RATES.

THE AMERICAN SCHOOL BOARD JOURNAL

8 Bruce Building Milwaukee 1, Wisconsin

Index to School Equipment—continued

Code No.	Page No.	Code No.	Page No.	Code No.	Page No.

READER'S SERVICE SECTION
INDEX TO SCHOOL EQUIPMENT

The index and digest of advertisements below will help you obtain free information, catalogs, and product literature from the advertisers and companies listed in the new products section. Merely encircle the code number assigned to each firm in the request from below, clip the form and mail it to THE AMERICAN SCHOOL BOARD JOURNAL. Your request will receive prompt attention.

Code No. / Page No.

80 American School Board Journal 66
School Board Subscription. Suggests that superintendents order subscriptions to the JOURNAL for the entire board. Offers special group rates.

81 American Seating Company 2
School Seating and Folding Chairs. Offers four popular seat styles either for grouping or locking in rows. Clip coupon on page 2 for catalog and other information.

82 Arlington Seating Company 58
School Seating. New individual table desks with slanting post design. Free catalog available.

83 Brulin & Co., Inc. 60
Floor Waxes, Cleaning Supplies. Octo-Solve rapid cleaning compound and Super-Wax quality floor wax. Write for information.

84 Chesapeake and Ohio Railway 61
Coal. Discusses many saving advantages of buying better coal. Write for facts and figures to solve fuel requirements.

85 Electro Silv-A-King, Corp. 63
Skylouver 20/20 Lighting Fixtures. Shows how Northwestern University saved money on lighting fixtures. Free specification and data catalog available.

86 Evereit Piano Company 65
"Style 10" School Piano. Engineered for beauty and long school service. Write for "Report 10" for facts on school piano specifications.

87 Fenestra Building Products ..... 12 & 13
Steel Windows. Two page spread shows how schools in four states save money with Fenestra steel windows. Free booklet on windows available.

87A Fenestra Building Products 59
Troffer Acoustical Building Panels. New panels that combine concrete joist forms, built in acoustical ceilings and recessed lighting troffers. A new faster way to build schools. Descriptive literature available.

88 Flynn Mfg. Co., Michael 9
Lupton Metal Windows and Curtain Walls. Quickly installed Lupton windows and simplified curtain wall system speeds school building and saves money. Illustrated brochure available.

89 Griggs Equipment Company 54
School Seating. Modern comfortable model 50 MBW auditorium chairs. Auditorium seating and catalog available.

810 Herman Nelson Unit Ventilator Products, American Air Filter Co., Inc. ..... 6 & 7
Heating and Ventilating. Two pages show how Herman Nelson DRAFT/STOP system gives classroom comfort while saving fuel dollars. Use coupon on page 7 for literature.

811 Heywood-Wakefield Co. 14
Original Tubular Steel School Furniture. Reasons why one school system chose Heywood-Wakefield for 45 new elementary classrooms. School furniture catalog available.

812 Higham, Neilson, Whitridge & Reid, Inc. 68
School Insurance Plans. National independent firm writes school insurance to fit any need. Write for information.

813 Johnson Service Company 1
Temperature Controls. Suggests thorough inspection and adjustment of Johnson control systems by factory trained experts during vacation time. Plus information on new installation of Johnson controls. Write for information.

814 Krueger Metal Products 65
Metal Folding Chairs and Chair Trucks. Four sizes of demountable chair trucks for folding chair storage and new tubular and channel steel chairs. Write for catalog.

815 Kuehne Manufacturing Co. 47
School Seating. New line of tubular steel furniture. Describes and illustrates complete line of school furniture. Illustrated brochure available.

816 Luria Engineering Corp. 8
Pre-Fabricated Steel Buildings. Shows how standardized steel forms can give custom built structures plus economy. Write for illustrated catalog.

817 Minneapolis-Honeywell Regulator Co. ..... 56 & 57
Temperature Controls. Two page spread shows advantages of Schoolmaster system for giving individual temperature control to fit the needs of each classroom. Write for complete information.

818 Mississippi Glass Company 4
Coolite glass. Heat absorbing, glare reducing Coolite glass makes classrooms more comfortable and reduces eye fatigue. Catalog "Better Daylighting for Schools" available.

819 Mitchell Mfg. Company 65
Fold-O-Leg Tables. Durable, attractive folding tables that set up and fold quickly for any school need. Illustrated folder available.

(Continued on next page)

TEAR ALONG PERFORATED LINE. POSTAGE PAID FOR CONVENIENCE.

THE AMERICAN SCHOOL BOARD JOURNAL August, 1955
400 North Broadway, Milwaukee 1, Wis.

Please ask the manufacturers, whose code numbers I have encircled, to send me free information, catalogs or product literature as mentioned in this issue of the JOURNAL.

ADVERTISING INDEX

80	83	86	89	812	815	818	821	824	826	828	830
81	84	87	810	813	816	819	822	825	827	829	831
82	85	88	811	814	817	820	823	87A			

NEWS OF PRODUCTS FOR THE SCHOOLS

085	087	089	091	093	094	095	096	097	098	099	0100
086	088	090	092								

Also information on _____

Name _____
Please Print

Title _____ **School** _____

City _____ **Zone** _____ **State** _____

No. 4 OF A SERIES

WHAT TO LOOK FOR IN QUALITY TOILET COMPARTMENT CONSTRUCTION

One of many major differences that give you your money's worth in satisfactory service!

Index to School Equipment—continued

Code No.		Page No.
820	**Nesbitt, Inc., John J.** ..... **4th cover** Heating and Ventilating System. How Nesbitt Wind-o-Line system reduces mechanical system costs in heating and ventilating while increasing comfort and protection. Write for Publication 104.	
821	**Owens Illinois: Kimble Glass Co. Subdivision** ..... **50 & 51** Glass Block. How seven schools are making better use of daylight with glass block walls. Provides ideal glare and contrast-free seeing environment. Write for literature.	
822	**Peabody Company, The** ..... 53 Tubular School Furniture. The "family album" of Peabody furniture with emphasis on quality and satisfaction. Write for information.	
823	**Powers Regulator Co.** ..... 11 Temperature Control. Demonstrates why a new high school chose Powers Automatic Temperature Control throughout the whole school. Information available.	
824	**Premier Engraving Company** ..... 66 Engravers for printing. Offers quality service for black & white and color printing. Write for information.	
825	**Richards-Wilcox Mfg. Co.** ..... 64 Folde R-Way Automatic Partitions. How folding partitions add flexibility to gymnasiums and auditoriums quickly and automatically. Write for Catalog A99.	
826	**Sanymetal Products Co., Inc.** .... **3rd cover** Toilet Compartments and Shower Stalls. Shows how the quality construction features in Sanymetal's toilet compartments give long, durable life. Catalog 92 available.	
827	**Schieber Sales Company** ..... **2nd cover** Folding Tables & Benches. How Schieber multi-purpose room equipment keeps schools modern and flexible with emphasis on quality long life features. Catalog available.	
828	**Sexton & Company, Inc., John** ..... 55 Institutional Food. Sexton quality jellies and preserves make contented school lunchers. Trial assortment suggested. Write for details.	
829	**Sjostrom Co., John E.** ..... 49 Unaflex Laboratory Furniture. How Sjostrom's imagineering department helps plan school laboratories in a multi-use room. Write for information.	
830	**Upright Scaffolds** ..... 10 "Scaffolds on Wheels." How scaffolds on wheels help make school maintenance and repairs safer and more efficient. Can be used on flat surfaces or stairs. Descriptive circular available.	
831	**Will-Burt Company** ..... 52 Stokers. Will-Burt automatic air controlled stokers assure complete, efficient combustion of all BTU's in coal. Manual of stoker installations and specifications available.	

NEWS OF PRODUCTS FOR THE SCHOOLS

Code No.		Page No.
085	**Brunswick-Balke-Collender Co.** ..... 62 Modern Cabinets	
086	**Smith-Corona, Inc.** ..... 62 Electric Model	
087	**The Garland Company** ..... 62 Non-Skid Coating	
088	**Allied Chemical and Dye Corp.** .... 62 Melamine Dinnerware	
089	**Kuehne Company** ..... 62 Study-Top Unit	
090	**American-Olean Tile Company** ..... 62 Ceramic Floor Patterns	
091	**G. H. Tennant Company** ..... 62 Model "E" Machine	
092	**Owens-Corning Fiberglas Corp.** .... 64 Acoustical Form Board	
093	**C. Howard Hunt Pen Co.** ..... 64 Boston Ranger 55	
094	**Beckley-Cardy Company** ..... 66 Rota Desk	
095	**Remington-Rand, Inc.** ..... 66 Folder	
096	**Architectural Woodwork Institute** .. 66 Brochure	
097	**Shwayder Brothers, Inc.** ..... 66 Brochure	
098	**Detroit Steel Products Co.** ..... 66 Catalog	
099	**American Playground Device Co.** ... 66 Catalog	
0100	**Wakefield Company** ..... 66 Booklet	

For Your Product Information Request

The advertisements in this issue have been given a code number for your convenience in requesting information on products, services, booklets, and catalogs offered. Encircle the code number of the advertisement in which you are interested, clip and mail the "postage paid" card. Your request will receive prompt attention. BRUCE—MILWAUKEE.

AN INDEPENDENT FIRM GIVES YOU BETTER SERVICE ON SCHOOL INSURANCE PLANS

HNWR INSURANCE

In considering schooltime accident insurance ... or an insurance program covering all your special needs, consult HNW&R ... the independent firm that operates nationally, supplies the plan best suited to *your* needs. You'll get *better* service.

Higham, Neilson, Whitridge & Reid, Inc.

Leading the Nation in School Insurance

50 Congress Street • Boston, Mass.

Philadelphia • Chicago

Nashville • Los Angeles

Postage Will Be Paid by Addressee

No Postage Stamp Necessary If Mailed in the United States

BUSINESS REPLY CARD

First Class Permit No. 1112, Sec. 34.9 P. L. & R., Milwaukee 1, Wis.

AMERICAN SCHOOL BOARD JOURNAL

P.O. Box No. 2068

MILWAUKEE 1, WISCONSIN

City ..... Zone ..... State .....

No. 4
OF A SERIES

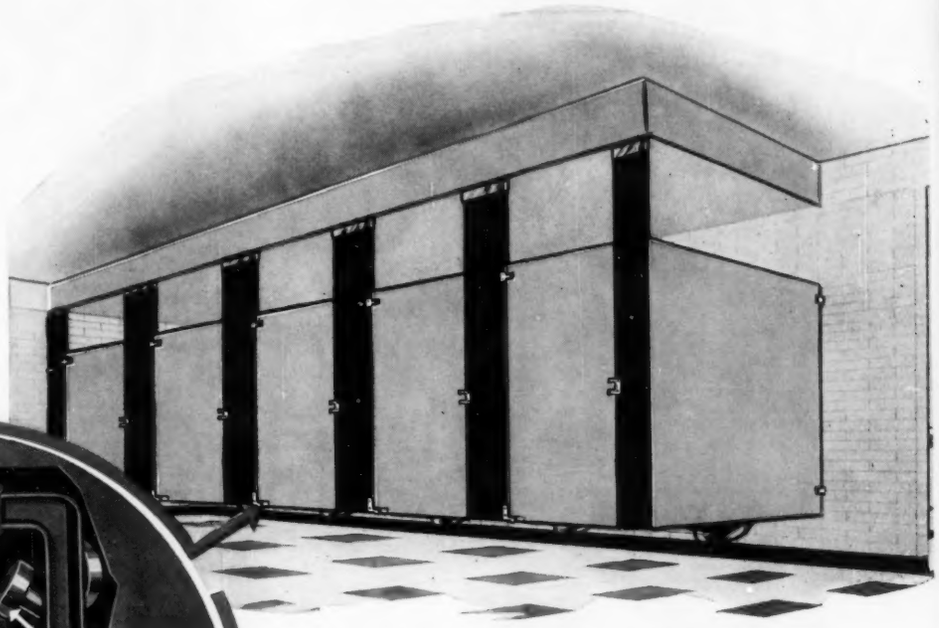
WHAT TO LOOK FOR IN QUALITY TOILET COMPARTMENT CONSTRUCTION

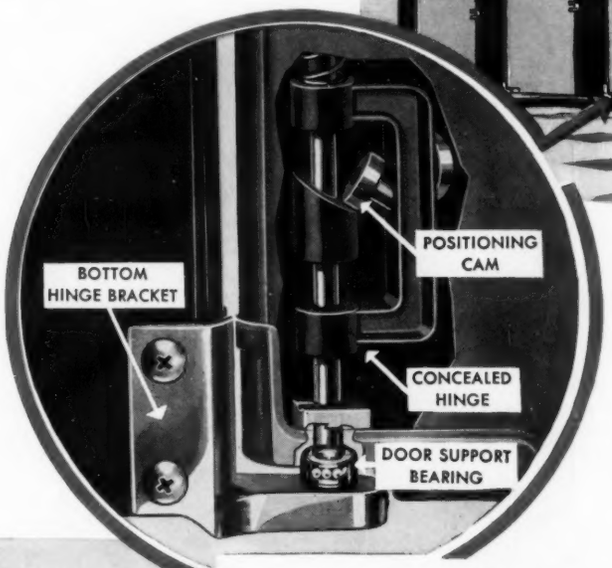
One of many major differences that give you your money's worth in satisfactory service!

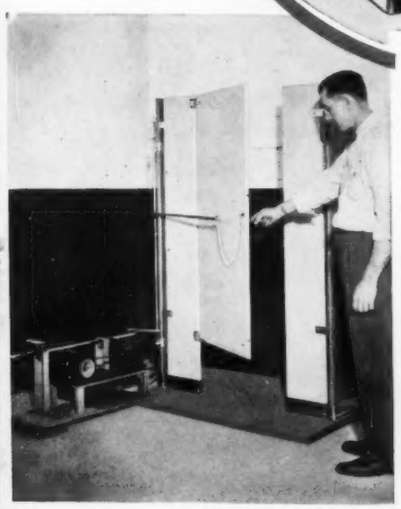
301,000 cycles of use

WITHOUT

NOTICEABLE WEAR







THE SANYMETAL 7700 HINGE is an adjustable controlled-action hinge which supports the door wholly on a thrust ball-bearing. The hinge is concealed within the door thickness—tamper-proof and dirt-proof. The position control is a separate spring-loaded ball-bearing roller and cam, supporting no weight. Constructed thus the door does not rise or lower as it swings. Anti-friction bearings make motion easy, and bearings are of "Oilite" and graphite types, requiring no lubrication.

LABORATORY CERTIFIED: To test the Sanymetal 7700 Hinge, an independent nationally known laboratory mounted a Sanymetal door from stock in the usual way using a Sanymetal 7700 Hinge taken from stock at random. After the test, the laboratory checked the positioning, motion and alignment of the door, then disassembled and inspected the hinge parts, and reported "all working parts in satisfactory condition."

MANY quality construction features found in *all* Sanymetal Toilet Compartments mean longer satisfactory service. These features result from Sanymetal's 41 years' experience manufacturing compartments. Be sure you get this quality.

A feature to look for is the Sanymetal *7700 Bottom Hinge* on compartment doors. Notice that it is concealed within the normal thickness of the door, having no cumbersome exposed hinge mechanism. Thus it produces clean, architectural door lines. It is a longer lasting, easier working, more reliable hinge. In independent laboratory test this hinge, mounted in a door, was opened and closed 301,000 times. After this test the door still operated perfectly and the hinge showed no noticeable wear!

This hinge, contributing to long satisfactory service, is one of many special features standard at no extra cost on all Sanymetal Compartments. Ask your Sanymetal Representative about all these features not offered by others.

See Sweet's or send for Catalog 92, describing all Sanymetal Compartments. If you wish, we will mail other advertisements of this series on quality construction details.

This long-life feature is **STANDARD** *at no extra cost on all types of Sanymetal Compartments.*

THE
Sanymetal®
PRODUCTS COMPANY, INC.
1686 URBANA ROAD, CLEVELAND 12, OHIO

proved

Actual bids are confirming this Nesbitt claim!

You, too, can save with this Nesbitt Series Hot Water Wind-o-line System

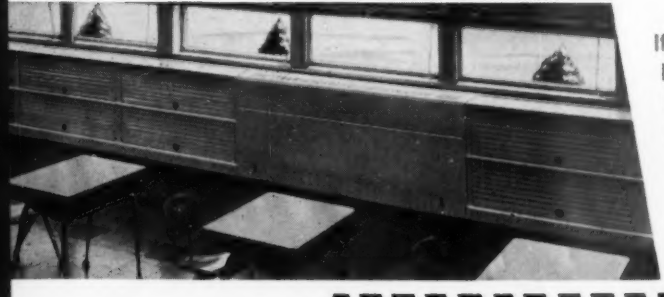
Every day brings reports of new school awards in which heating and ventilating costs are 20% or more below the norm because of the protective Nesbitt Series Wind-o-line System—in which the tubing serves as the supply and return mains.

* Heating and ventilating classrooms with Nesbitt Syncretizers and Wind-o-line Radiation in series hot water circuits, saves 20% or more of the construction, equipment, and installation costs of conventional piping systems with trenches and runouts.

For instance: One new $1,481,000 Pennsylvania school ($162,000 for heating and ventilating) saves an estimated $42,000 with the Nesbitt System—by a reduction in pipe trenches, smaller pipes and pumps, and less pipe covering and controls.

A new Ohio school will get Nesbitt unit ventilation and Wind-o-line protection for less than the estimated cost of warm-air heating! Other new schools will enjoy the increased comfort and cold-wall protection of this system at comparably lower costs.

Although savings and convenience are undeniable advantages of the Series Wind-o-line System, of added importance are the increased comfort of variable water temperature control, cold surface protection, off-time temperature maintenance.



If you don't have Publication 104 be sure to send for it today.

Made and sold by John J. Nesbitt, Inc.
Sold also by American Blower Corporation

Nesbitt

THE HEATING AND VENTILATING SYSTEM THAT SETS A NEW STANDARD OF CLASSROOM COMFORT

Construction cost data bulletins free on request

JOHN J. NESBITT, INC., PHILADELPHIA 36, PA.
Please send a copy of Publication 104 ☐
Send me data showing construction costs of schools using Nesbitt Series Wind-o-line System ☐

Name_____

Address_____

City_____ State_____